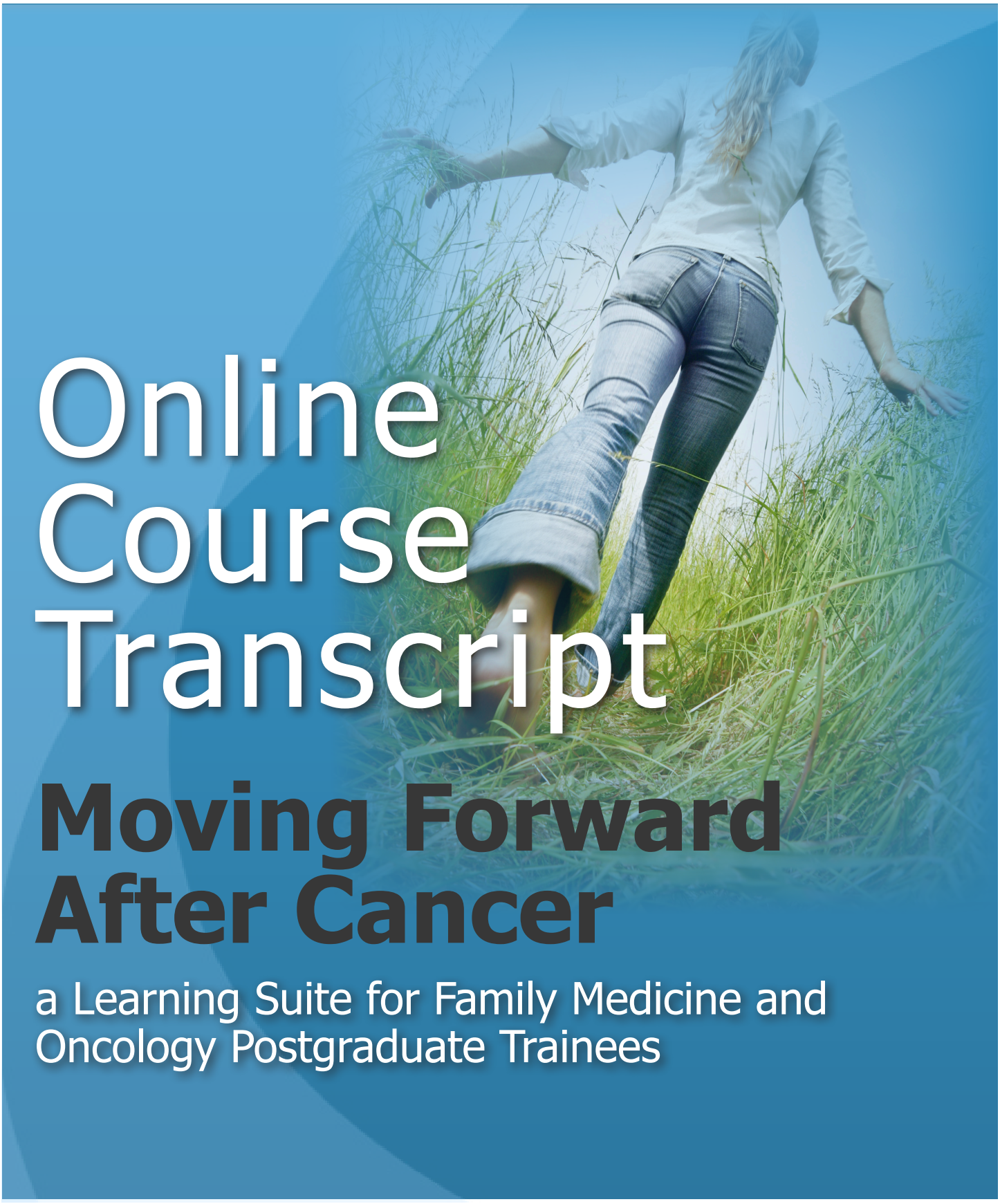

Online Course Transcript

Moving Forward After Cancer

a Learning Suite for Family Medicine and Oncology Postgraduate Trainees

integrating primary care + cancer care in survivorship

An initiative of / Une initiative du

CANADIAN PARTNERSHIP AGAINST CANCER

PARTENARIAT CANADIEN CONTRE LE CANCER

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FIRST EDITION

Access to the complete *Moving Forward After Cancer* curriculum is available on the University of Manitoba Continuing Professional Development website, at:
https://www.cpd-umanitoba.com/elearning/moving-forward-after-cancer/

PREPARED FOR
Canadian Partnership Against Cancer
BC Cancer Agency
CancerCare Manitoba
CancerCare Ontario

PREPARED BY
Cheryl Ann Moser | OneStone Communications

AUTHORED BY
Cheryl Ann Moser | OneStone Communications

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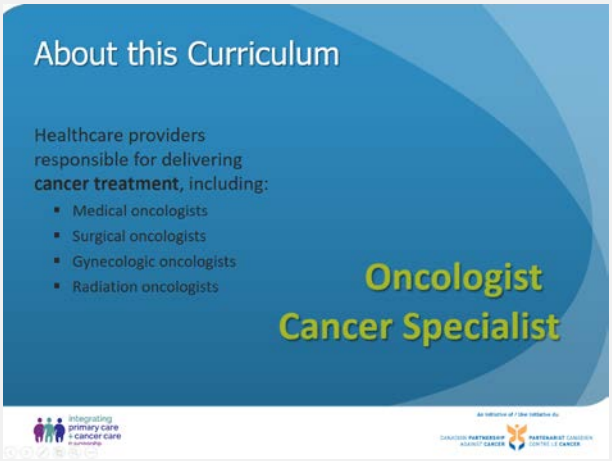
Moving Forward After Cancer is a learning suite designed for family medicine and oncology postgraduate trainees.

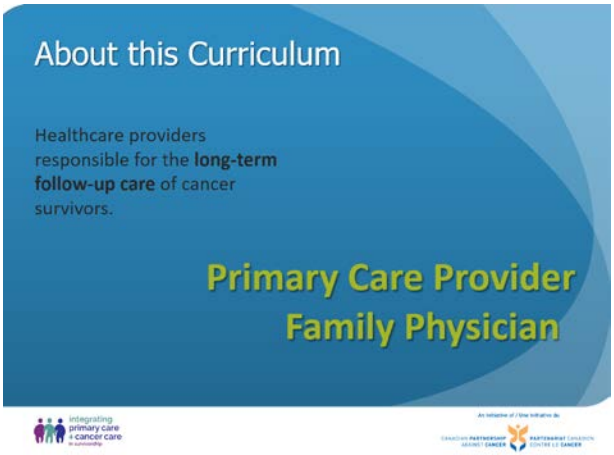
Curriculum content was vetted by a national committee of practicing oncologists, family physicians and postgraduate trainees of both disciplines, as well as a patient advisory committee of more than two dozen cancer survivors.

Representatives from CancerCare Manitoba, BC Cancer Agency and Cancer Care Ontario helped guide the development of the curriculum. The *Moving Forward After Cancer* curriculum project received funding in the form of a grant from CPAC, the Canadian Partnership Against Cancer (CPAC).

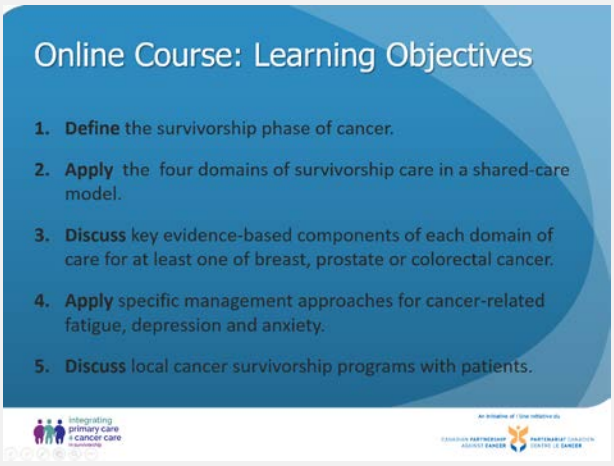


For the purposes of this course, the terms oncologist and cancer specialist are used interchangeably to describe those healthcare providers responsible for delivering cancer treatment, including:

- Medical
- Surgical
- Gynecologic and
- Radiation oncologists



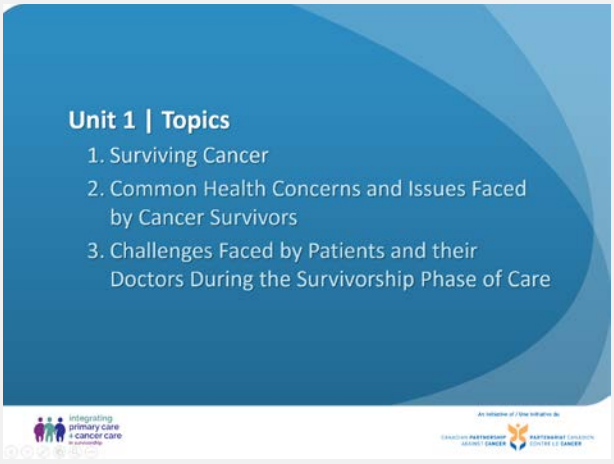
Similarly, primary care provider and family physician are used to describe those healthcare providers responsible for the long-term follow-up care of cancer survivors.



Upon completion of the online course, you should be able to complete the following tasks.

1. Define the survivorship phase of cancer.
2. Apply the four domains of survivorship care in a shared-care model.
3. Discuss key evidence-based components of each domain of care for at least one of breast, prostate or colorectal cancer.
4. Apply specific management approaches for cancer-related fatigue, depression, and anxiety.
5. Discuss local cancer survivorship programs with patients.

Unit 1: The Survivorship Phase of Cancer

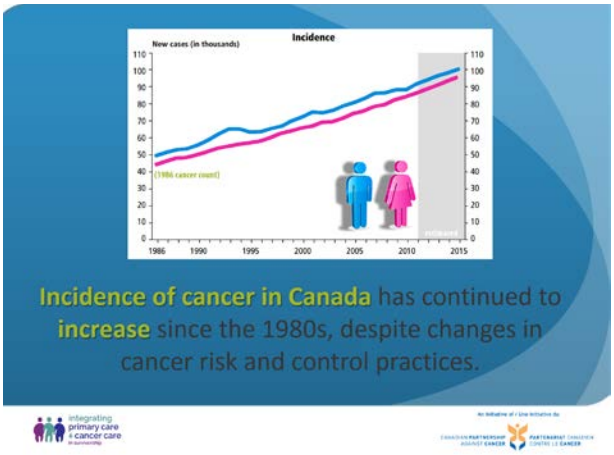


Unit 1 | Topics

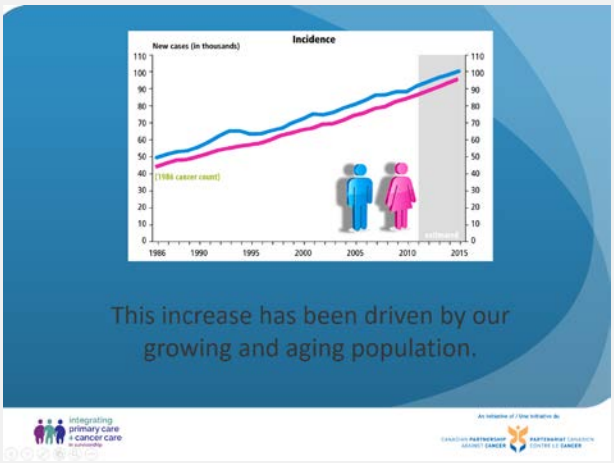
1. Surviving Cancer
2. Common Health Concerns and Issues Faced by Cancer Survivors
3. Challenges Faced by Patients and their Doctors During the Survivorship Phase of Care

Topic 1: Surviving Cancer

Cancer survivorship has been recognized in recent research, as a distinct phase in the continuum of cancer care. Cancer survivorship is defined as the period of well follow-up care and rehabilitation following cancer treatment It addresses a comprehensive range of survivorship issues for the duration of the survivor's life.



The incidence of cancer in Canada has continued to increase since the 1980s, despite changes in cancer risk and control practices.

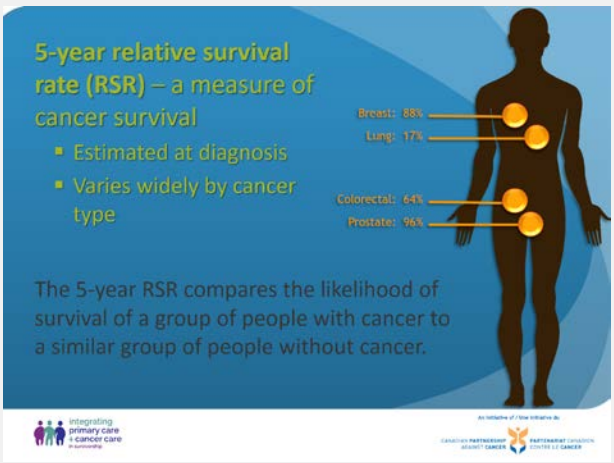


This increase has been driven by our growing and aging population; however, the cancer survivorship picture in Canada is getting better.

A significantly greater proportion of Canadian adults diagnosed with cancer today will reach 5- and 10-year survival milestones, compared with those diagnosed 30 years ago.

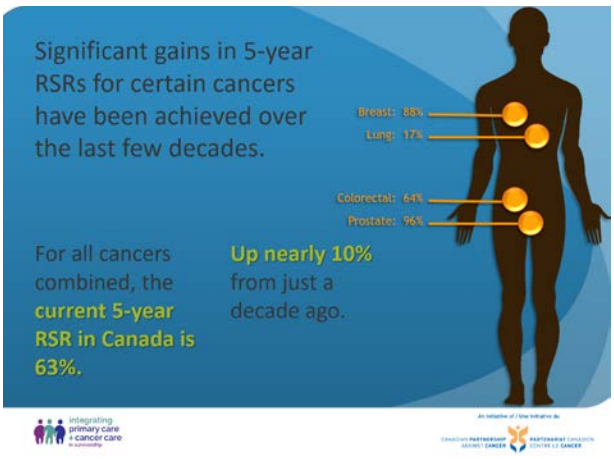
The 2015 Canadian Cancer Statistics report states that as many as 2 in 5 Canadians will develop some form of cancer in their lifetime, and more than half of diagnoses will be for one of four common cancers.

Of those diagnosed with cancer today, an estimated three in four will survive at least five years following a cancer diagnosis.



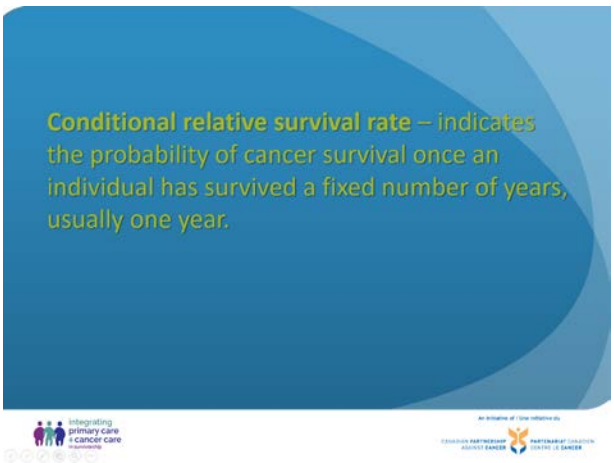
Cancer survival is commonly measured in terms of a patient's 5-year relative survival rate (RSR), which is estimated at diagnosis, and varies widely by cancer type.

The 5-year RSR compares the likelihood of survival of a group of people with cancer to a similar group of people without cancer.

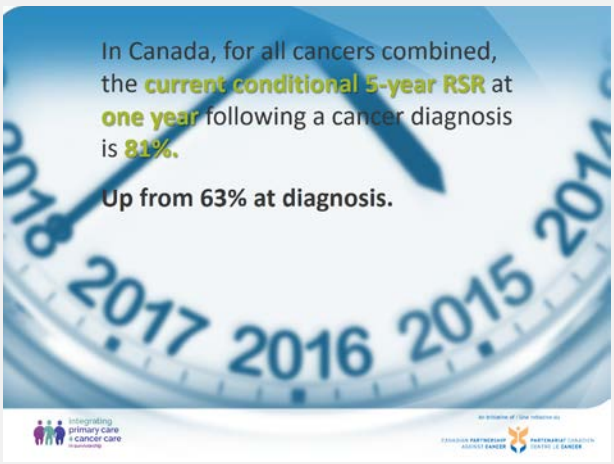


Significant gains in 5-year RSRs for certain cancers have been achieved over the last few decades as a result of early detection methods and improvements in therapies and case management strategies. For all cancers combined, the current 5-year RSR in Canada is 63%, which is up nearly 10% from just a decade ago.

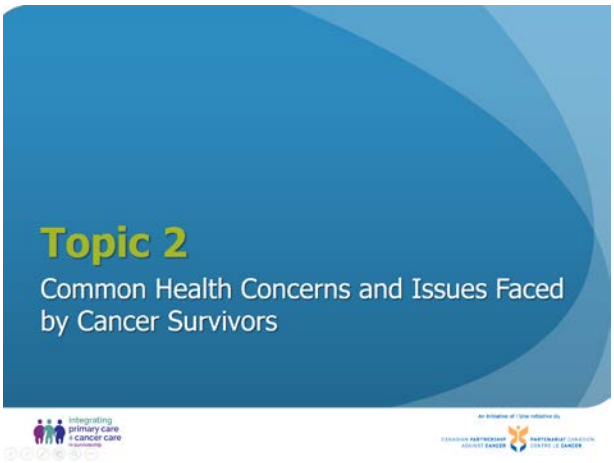
Prognosis is substantially better for those who have survived at least one year following a cancer diagnosis. An age-specific analysis of 13 cancers published in the Journal of Clinical Oncology in 2010 demonstrated that initial differences in 5-year RSRs for some cancers largely disappeared with time, which is why we look now to a new measure of survival.



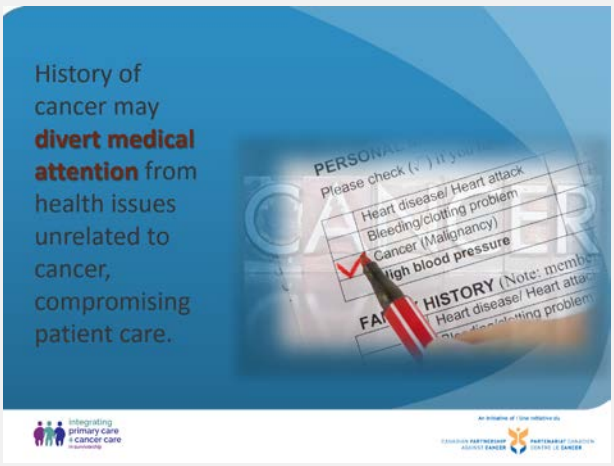
The conditional relative survival rate is a relatively new measure that indicates the probability of cancer survival once an individual has survived a fixed number of years, usually one year.



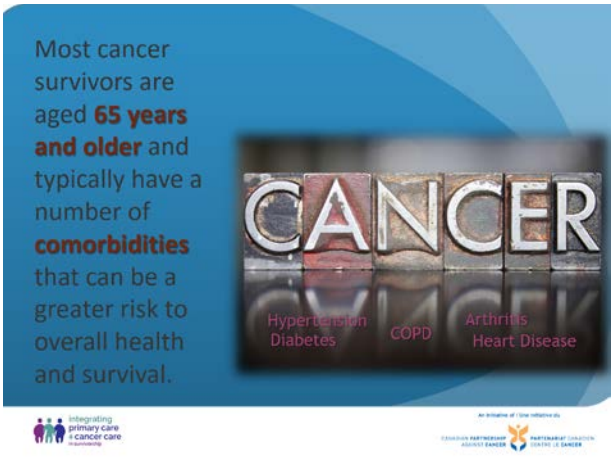
In Canada, for all cancers combined, the current conditional RSR when measured among those who survived one year following a cancer diagnosis is 81% - Up from 63% at diagnosis.



Topic 2: Common Health Concerns and Issues Faced by Cancer Survivors

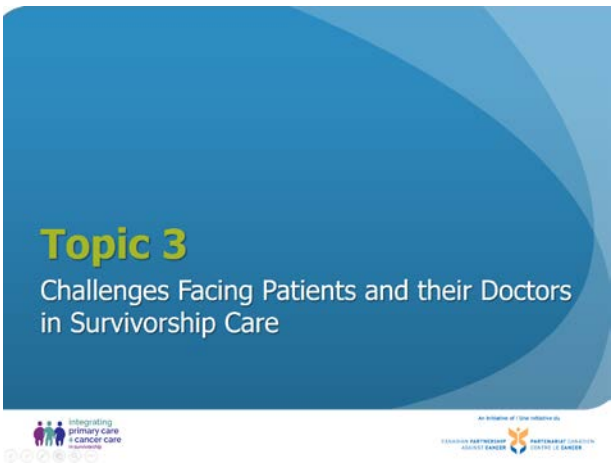


A history of cancer may divert medical attention from their other health issues that are unrelated to cancer, compromising patient care.



This is especially concerning since most cancer survivors are aged 65 years and older and typically have numerous comorbidities that can be a greater risk to overall health and survival.

Cancer survivors face a spectrum of health issues distinct from those they faced prior to diagnosis, with some adverse outcomes – including emotional distress and fatigue – that are far more serious and persistent than patients often expect.



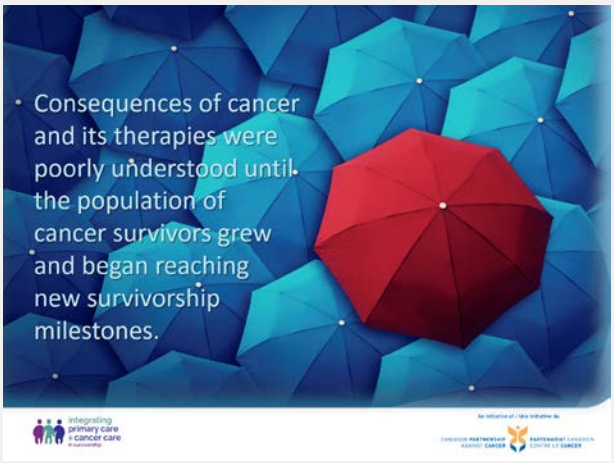
Topic 3: Challenges Facing Patients and their Doctors in Survivorship Care

Cancer survivors are a vulnerable population. They face numerous short- and long-term consequences of the cancer experience that give rise to a lengthy and uncertain period of survivorship.

From the perspective of the individuals who have made it to the survivorship phase of cancer; nothing prepares the patient or their family for the anxiety that follows the completion of acute therapy.

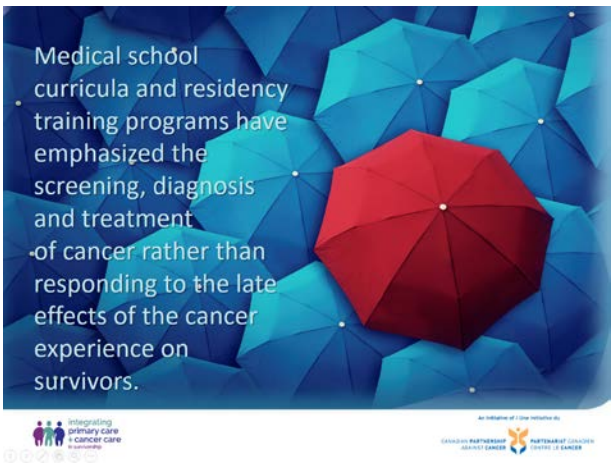
Following cancer treatment, survivors often require rehabilitation and supportive care services to address many dimensions of health, including the: physical, emotional, psychosocial, spiritual, and financial consequences of cancer and its therapies.

Unfortunately, cancer survivorship care has been the least consistent and most variable phase of the patient experience in contrast to the careful structure of active treatment.



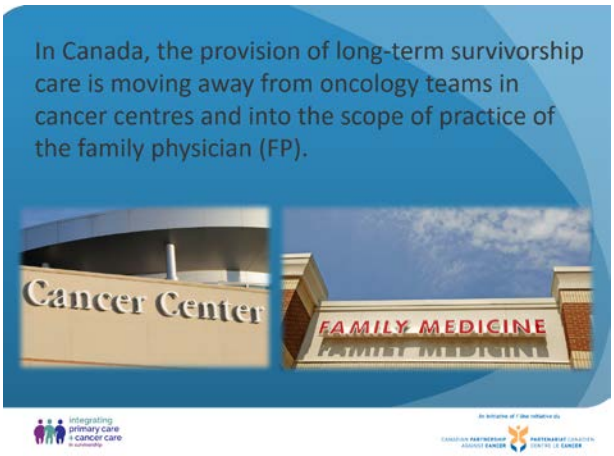
The inconsistency of follow-up care may be attributed to numerous variables, including:

- The consequences of cancer and its therapies were poorly understood until the population of cancer survivors grew and began reaching new survivorship milestones



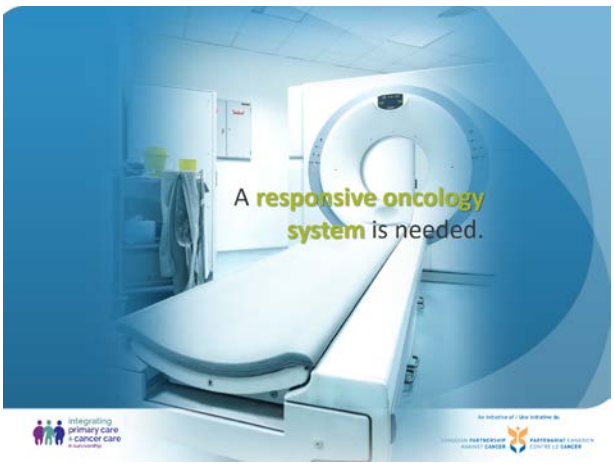
- Medical school curricula and residency training programs had emphasized the screening, diagnosis, and treatment of cancer rather than responding to the late effects of the cancer experience on survivors.

- And there had been little research into effective models of survivorship care and few implemented programs.

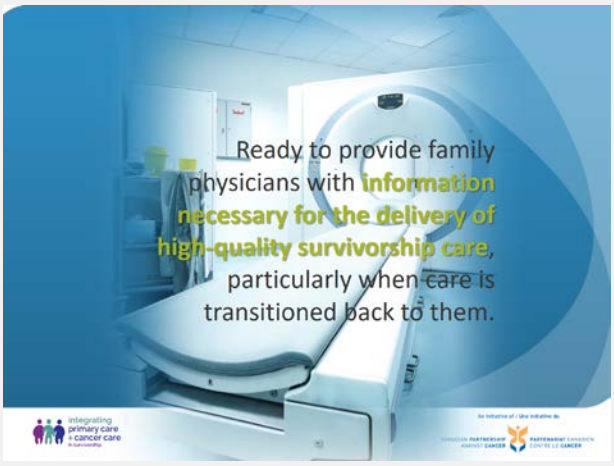


In Canada, the provision of long-term survivorship care is moving away from oncology teams in cancer centres and into the scope of practice of the family physician (FP), particularly for the more common, lower-risk cancers and treatments.

In some ways, survivorship care is a new task for primary care providers that requires interspecialty collegiality and collaboration.

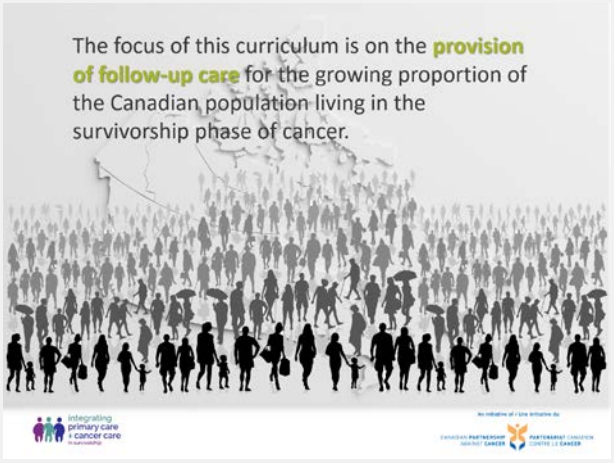


Specifically, a responsive oncology system is needed.

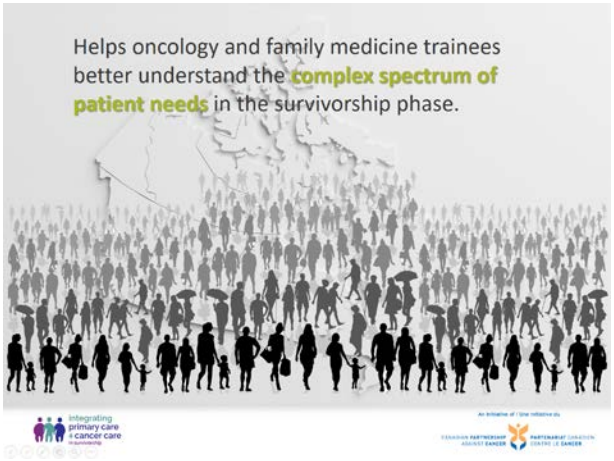


One that is ready to provide family physicians with information necessary for the delivery of high-quality survivorship care, particularly when care is transitioned back to them.

They must also be available to co-manage complications and to respond when recurrence is suspected.

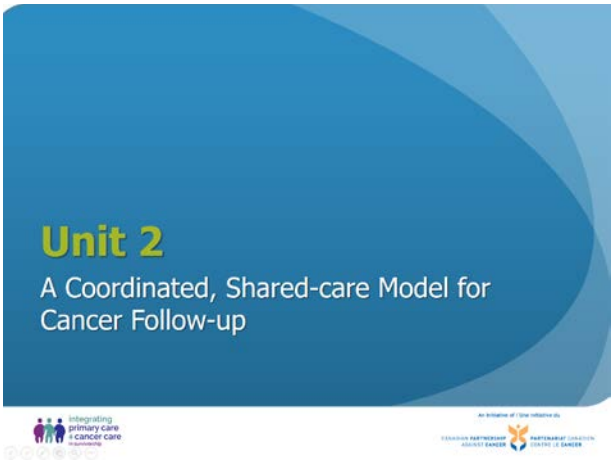


The focus of this curriculum is on the provision of follow-up care for the growing proportion of the Canadian population living in the survivorship phase of cancer.

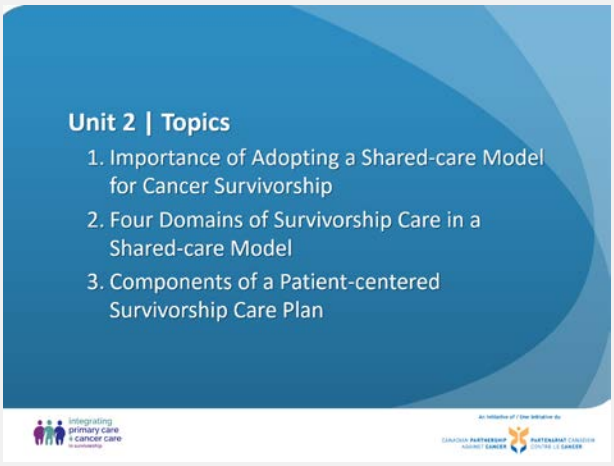


This curriculum also aims to help oncology and family medicine trainees better understand the complex spectrum of patient needs in the survivorship phase of cancer, and…

…demonstrates the value of adopting a coordinated, shared-care approach with these patients.

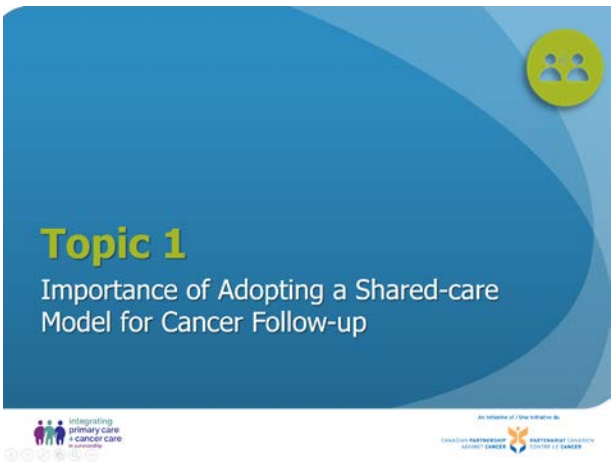


Unit 2: A Coordinated, Shared-care Model for Cancer Follow-up

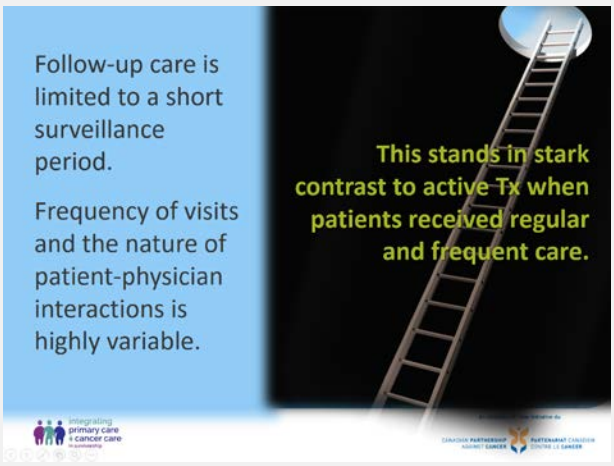


Unit 2 | Topics

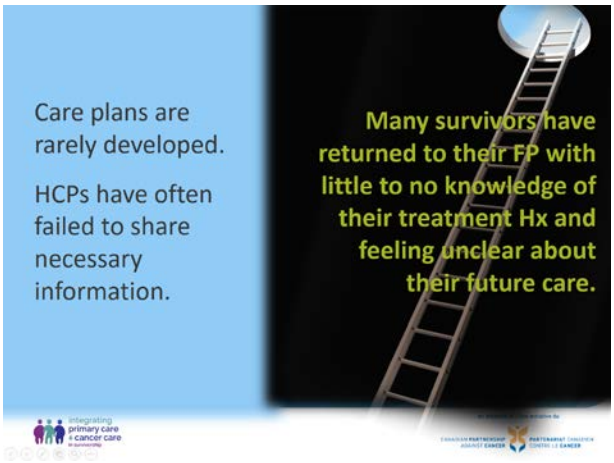
1. Importance of Adopting a Shared-care Model for Cancer Survivorship
2. Four Domains of Survivorship Care in a Shared-care Model
3. Components of a Patient-centered Survivorship Care Plan



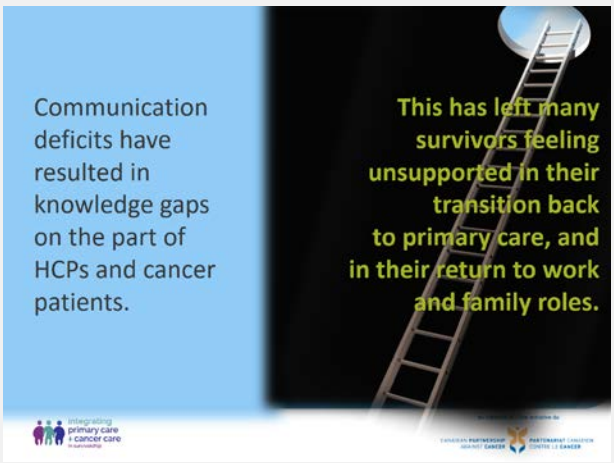
Topic 1: Importance of Adopting a Shared-care Model for Cancer Follow-up



Follow-up care has been limited to a short surveillance period. During this time, the scheduling of visit and nature of patient-physician interactions have been highly variable. This stands in stark contrast to active treatment when patients received frequent care.



Care plans are rarely developed. In their absence, HCPs have often failed to share necessary information. As a result, many cancer survivors have returned to their family physician with little to no knowledge of their treatment history and feeling unclear about their future care.

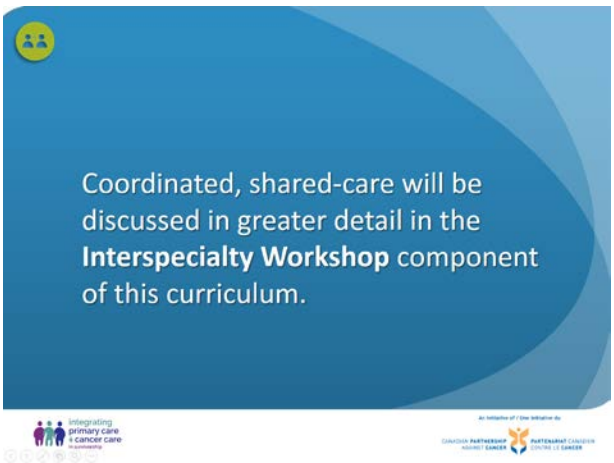


Communication deficits have resulted in knowledge gaps on the part of healthcare professionals and cancer patients. This has left many survivors feeling unsupported in their transition back to primary care, return to work and even at home.

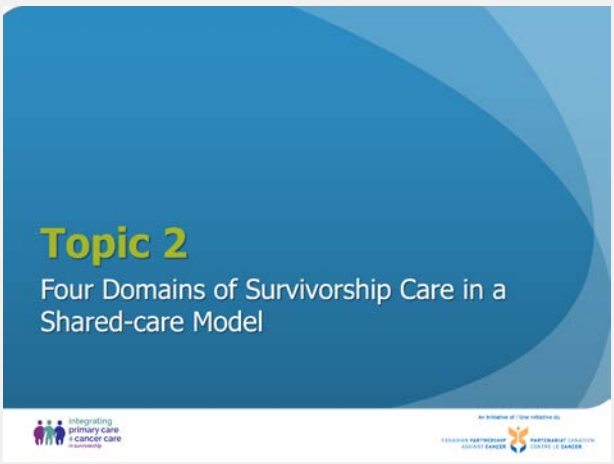
When patient-healthcare provider relationships are poor or absent and communications decay, adult cancer survivors have reported:

- Feeling reduced confidence in referrals;
- Experiencing absent or delayed healthcare services;
- Inappropriate treatment;
- Inconsistent care across treatment settings;
- Feeling devalued as individuals for being excluded from the management of their own care.

Coordinated, shared-care is the co-management of a patient by ≥2 HCPs of different specialties who are separated by some boundary such as a healthcare system or treatment site. Coordinated shared-care is proposed for this patient group. It has been broadly used in the management of patients with other chronic disease, resulting in improved in patient outcomes.



This approach to care will be discussed in greater detail in the Interspecialty Workshop component of this curriculum.



Topic 2: Four Domains of Survivorship Care in a Shared-care Model

Coordinated, shared-care is focused on addressing the unique needs of each patient, and standardizing survivorship care around four domains.

Prevention of recurrent and new cancers and other late effects.

Surveillance for recurrence, second cancers and treatment effects.

Intervention for the consequences of cancer and its treatment and any comorbidities.

Each of these domains rests on a foundation of coordinated care; that is, coordination between patients, their cancer specialists, and their family physicians in ongoing follow-up for the duration of the survivor's life.

In this model, the oncologist is primarily responsible for

- Initial coordination and guidance of long-term follow-up
- Safely transitioning the patient back to primary care
- Educating the primary care physician and patient about what to expect
- Responding to questions, consults and referrals
- Managing cancer therapy

Role of the Family Physician

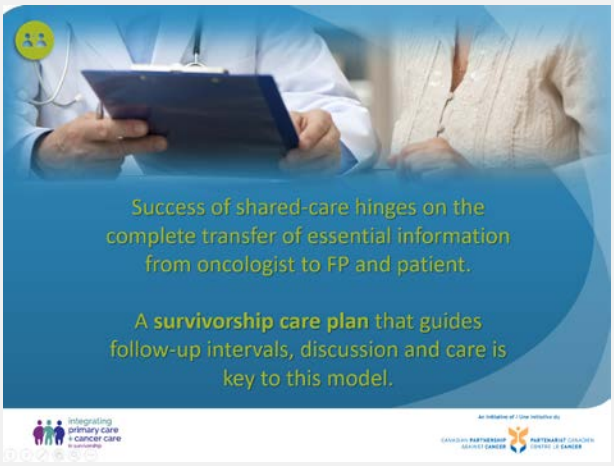
- Managing existing comorbidities
- Addressing the patient's overall health
- Sharing in intervention efforts and components of survivorship care
- Ongoing surveillance
- Coordinating ongoing follow-up with the patient and any specialists

Motivated patients are encouraged to assume a proactive role, and may serve as experts in their own surveillance and coordinators of their ongoing care.

Role of the Adult Patient

- Performing surveillance tests as recommended
- Organizing their information
- Sharing knowledge at times of transition
- Assisting with coordinating ongoing care
- Assuming a proactive role in preventive health

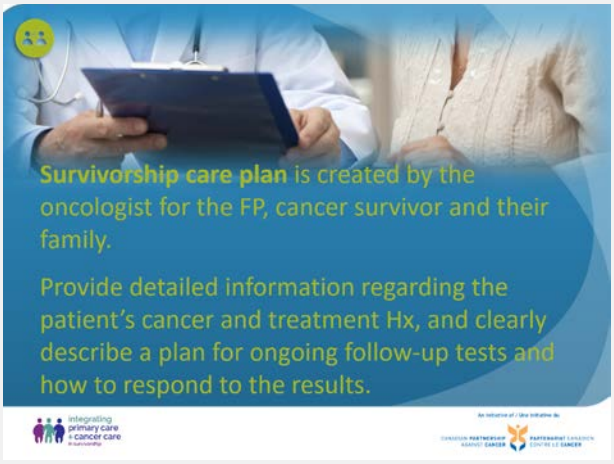
Topic 3: Components of a Patient-centered Survivorship Care Plan



Success of coordinated shared care hinges on the complete transfer of essential information from oncologist to primary care provider and patient. A survivorship care plan that guides follow-up intervals, discussion and care is key to this model.

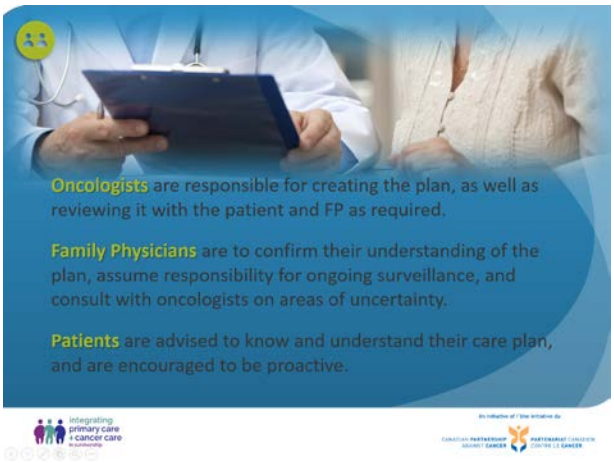
The survivorship care plan also:

- Increase consistency in communications,
- Establish a standard of care for oncologists and family physicians, and
- Empower patients to participate in the management of their own care.



Patient-centred survivorship care plan is created by the oncologist for the FP, cancer survivor and their family.

- Should provide detailed information regarding the patient's cancer and treatment history, and
- Clearly describe a plan for ongoing follow-up testing and how to respond to the results.



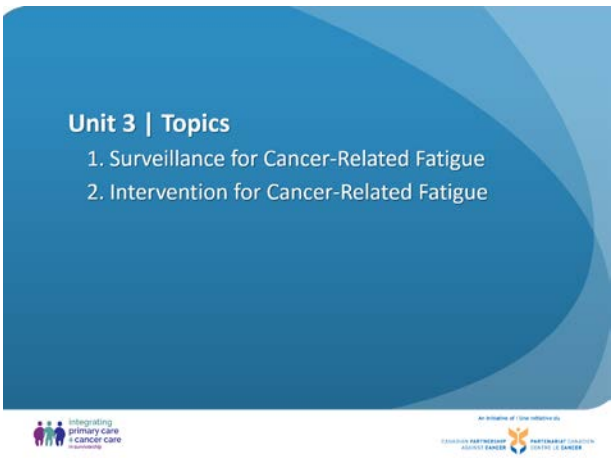
In summary:

- Oncologists are responsible for creating the plan, as well as reviewing it with the patient and family physician as required
- Family physicians are to confirm their understanding of the plan, assume responsibility for ongoing surveillance and survivorship care, and consult with oncologists on any areas of uncertainty
- Patients are advised to know and understand their care plan, and are encouraged to be proactive

Care transitions, safe hand-offs and survivorship care plans will be discussed in greater detail during the Interspecialty Workshop component of this curriculum.

Unit 3: Surveillance and Intervention for Cancer-Related Fatigue

Cancer survivors face a broad spectrum of health issues as a consequence of cancer and its therapies. Many of these challenges are common to all survivors, regardless of cancer type and therapeutic modality.



Unit 3 | Topics

1. Surveillance for Cancer-Related Fatigue
2. Intervention for Cancer-Related Fatigue

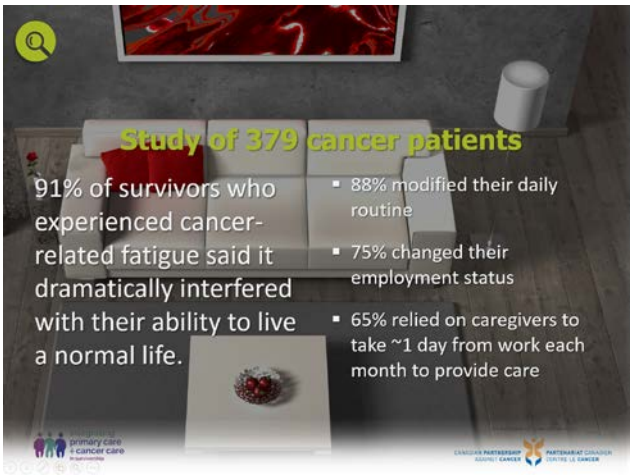
Topic 1: Surveillance for Cancer-Related Fatigue

Fatigue or a generalized lack of energy is among the most common and distressing long-term effects of cancer and its treatment.

Cancer-related fatigue is the subjective sensation of physical, emotional, and/or cognitive exhaustion that is

- disproportionate to recent activity, and
- interferes with usual functioning

It significantly reduces quality of life in the months and years following diagnosis, impacting both patients AND their caregivers.



One study of 379 cancer patients showed that 91% of individuals who experienced cancer-related fatigue described it as interfering with the ability to live a normal life.

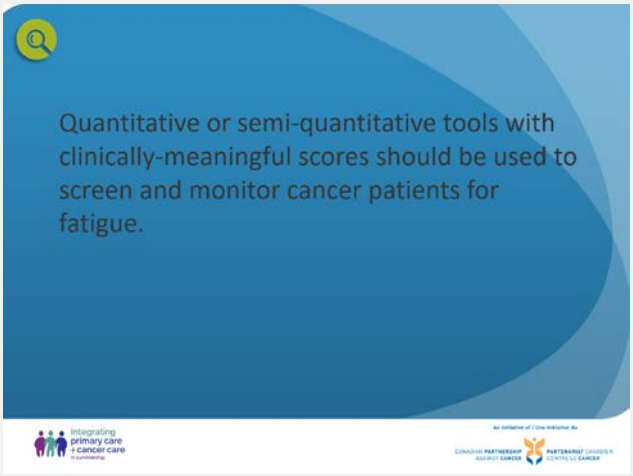
- Fatigue was the reason that 88% of these patients modified their daily routine,
- 75% of these patients who had been employed at the time of diagnosis changed their employment status and
- 65% of these patients relied on caregivers to take ~1 day from work each month to provide care

The time-course and experience of fatigue is unique to the individual and his/her cancer treatment plan.

Mild to moderate fatigue lasting up to one year with improvement over time is common among cancer survivors. Important to note is that late-onset fatigue – which is fatigue presenting for the first time months following acute treatment – and fatigue that worsens over time should be evaluated. This may suggest recurrence or some other condition.

All patients with a history of cancer should be screened for fatigue by their oncologist and primary care provider at different points along the cancer care continuum…

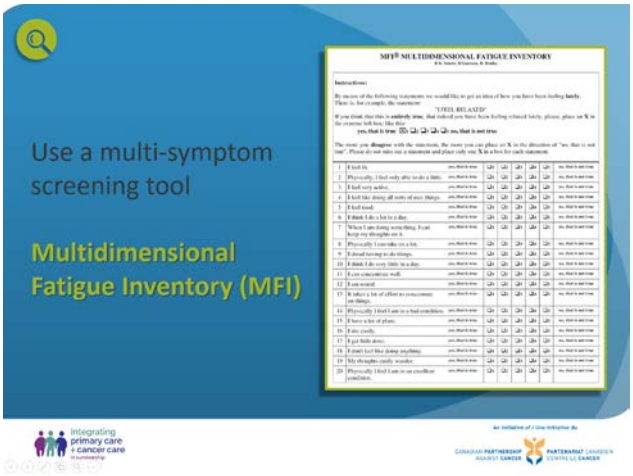
Surveillance for fatigue should begin at diagnosis and then at regular intervals as clinically indicated, and at discharge and any time there is a transfer in patient care.



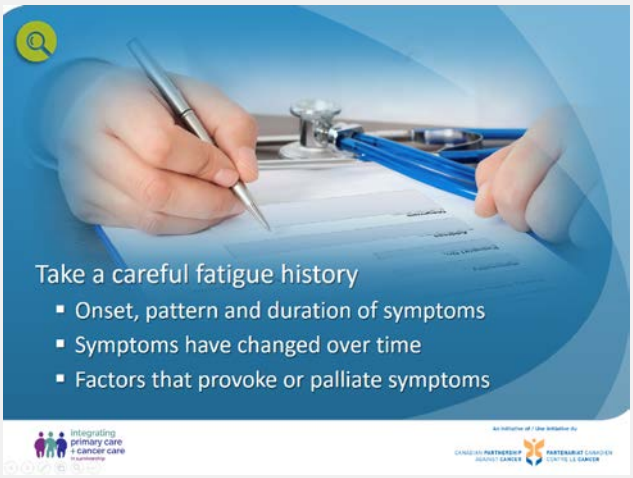
Quantitative or semi-quantitative tools with clinically-meaningful scores should be used to screen and monitor cancer patients for fatigue.

Screen survivors for fatigue using a simple 0-10 scale, where zero is no fatigue whatsoever, and 10 is the worst fatigue imaginable.

Fatigue is rarely an isolated symptom. Any cancer survivor with a score of at least 4 should receive a comprehensive and focused assessment.



This may include using a multi-symptom screening tool, such as the Multidimensional Fatigue Inventory (MFI), which has been included as a supplement to this course.



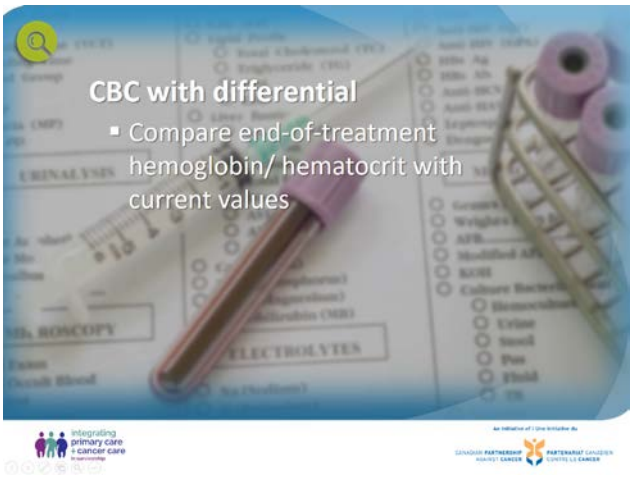
Take a careful fatigue history to determine the:

- Onset, pattern, and duration of symptoms;
- Whether or not the symptoms have changed over time; and
- Which factors provoke or palliate symptoms.

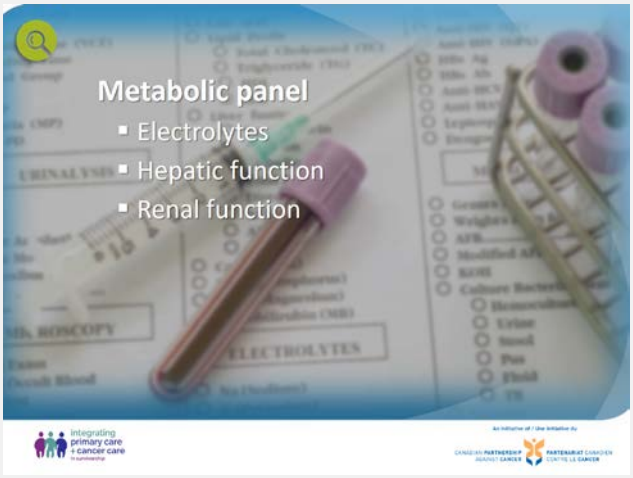
Assess and provide treatment for all factors that may be contributing to the fatigue. Consider:

- Comorbidities
- Medications
- Alcohol/substance abuse
- Nutritional issues
- Overall physical activity level, including functional status, any deconditioning and time spent sedentary

For patients whose other symptoms and/or onset and severity of fatigue are concerning, consider performing the following evaluation.

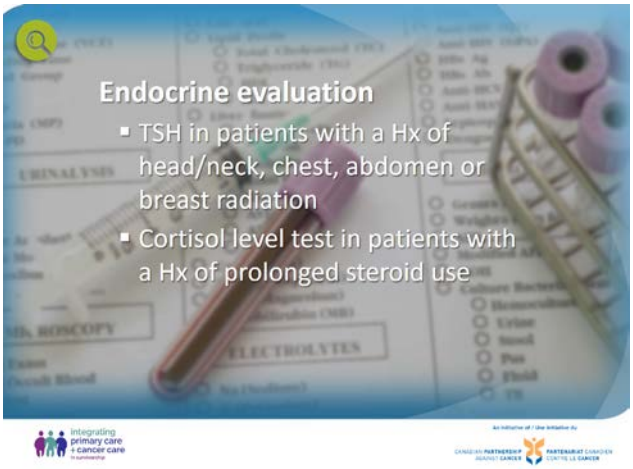


Complete blood cell count with differential, comparing end-of-treatment hemoglobin/hematocrit with current values.



Perform a metabolic panel to assess:

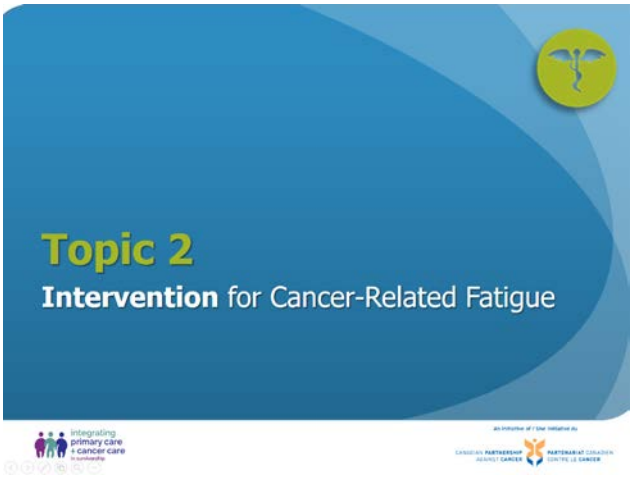
- Electrolytes
- Hepatic and
- Renal function



Consider an endocrine evaluation:

- Assess thyroid stimulating hormone (TSH) in patients who have received prior head/neck, chest, abdomen, or breast radiation
- Conduct a Cortical stimulation test in patients with a history of prolonged steroid use
- Consider a more comprehensive evaluation or referral to an endocrinologist if clinically indicated

Finally, evaluate the cancer survivor's current disease status, individual risk factors, and present symptoms. Determine whether there is reason to suspect recurrence or second cancers, and in cases where cancer is suspect, initiate investigation or consult with the patient's oncologist.



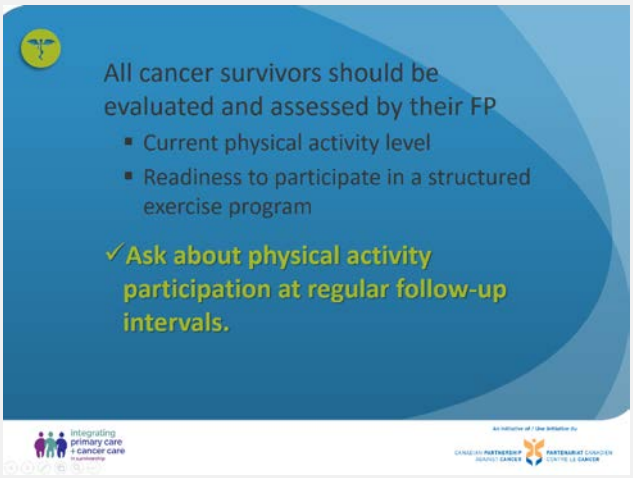
Topic 2: Intervention for Cancer-Related Fatigue

All patients with cancer should be educated about cancer-related fatigue at diagnosis and then again at discharge. Patients should be told about the persistence of fatigue following cancer treatment, informed of any causes and contributing factors, guided to self-monitor fatigue levels, counselled on energy conservation strategies such as identifying peak energy times, prioritizing tasks and activity pacing, and advised on fatigue management strategies with emphasis on exercise.

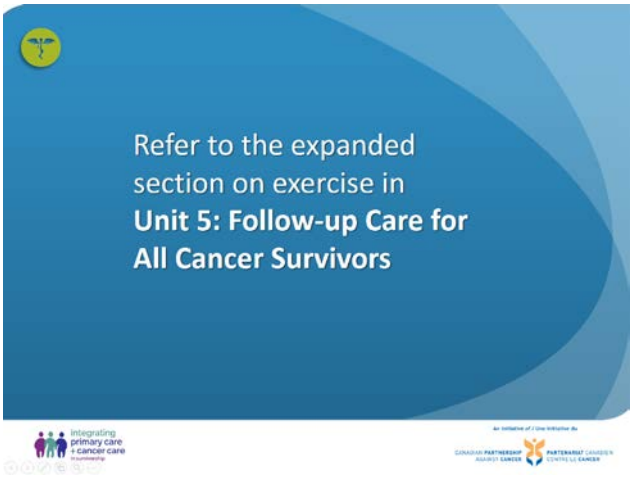
Although no current guidelines exist to inform on best practices for managing cancer-related fatigue, a strong body of evidence exists to support the combined use of pharmacologic and non-pharmacologic approaches, emphasizing psychosocial interventions and exercise.

Exercise is safe for cancer patients throughout the cancer care continuum, including during most types of cancer treatment.

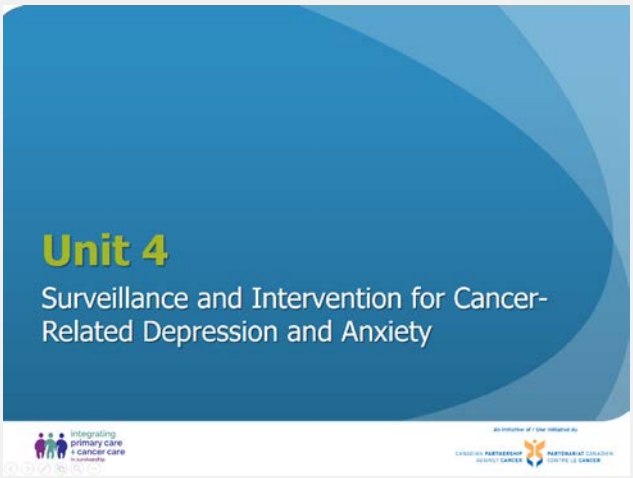
In fact, adoption and adherence to an exercise program with sufficient levels of physical activity has been shown to reduce cancer-related fatigue and improve physical function and quality-of-life in cancer patients.



All cancer survivors should be evaluated and assessed by their primary healthcare provider for their current physical activity level and readiness to participate in a structured exercise program. Remember to ask about physical activity participation at regular follow-up intervals.

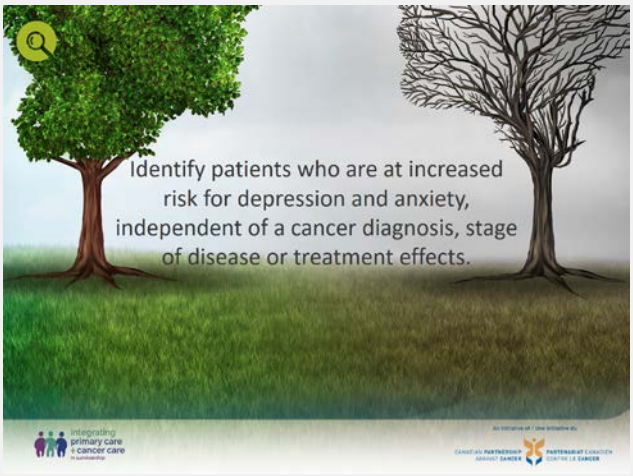


Refer to the expanded section on exercise in Unit 5: Follow-up Care for All Cancer Survivors.

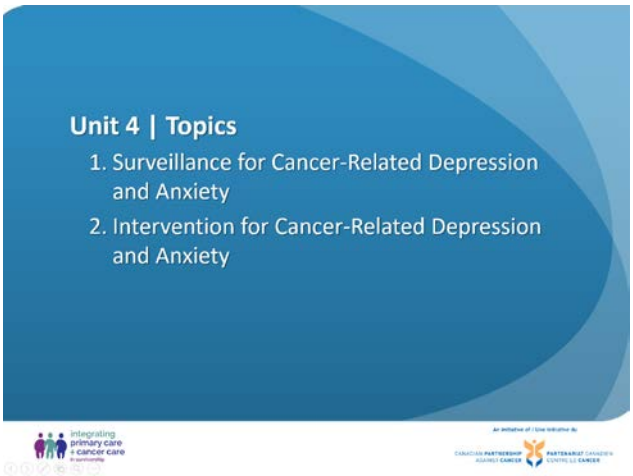


Unit 4: Surveillance and Intervention for Cancer-Related Depression and Anxiety

Many cancer survivors experience emotional distress that persists long after a cancer diagnosis.

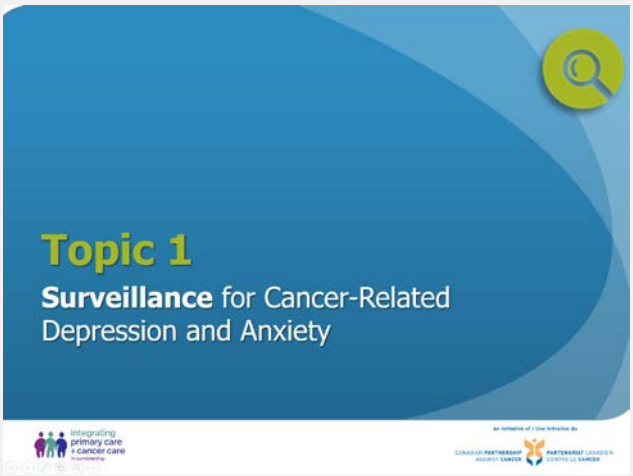


Family physicians should identify patients who are at increased risk for anxiety and depression, independent of a cancer diagnosis, stage of disease or treatment effects.

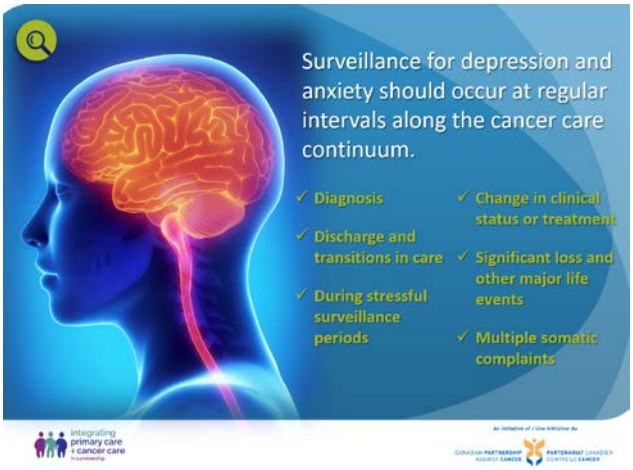


Unit 4 | Topics

1. Surveillance for Cancer-Related Depression and Anxiety
2. Intervention for Cancer-Related Depression and Anxiety



Topic 1: Surveillance for Cancer-Related Depression and Anxiety

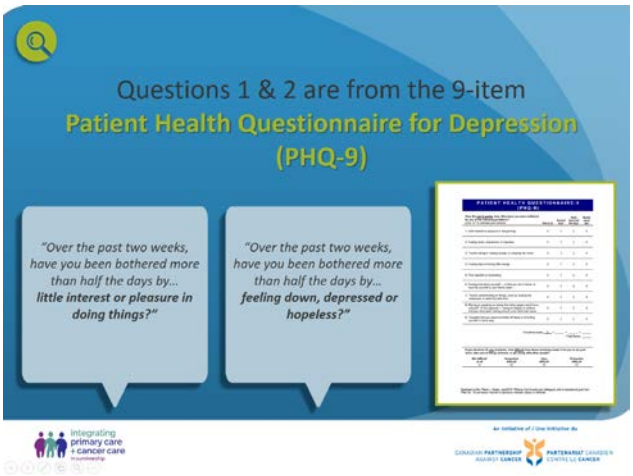


Surveillance for depression and anxiety should occur at regular intervals along the cancer care continuum, especially

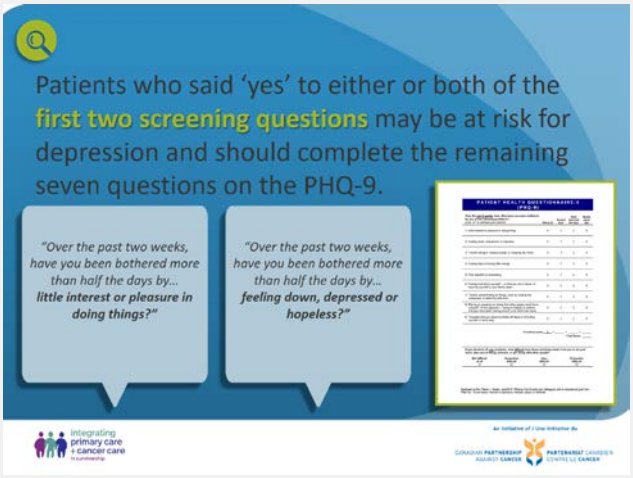
- At diagnosis
- Discharge and transitions in care
- During surveillance periods
- If there is a change in clinical status or treatment
- At times of significant loss and other major life events, or
- If the patient presents with multiple somatic complaints

Screen survivors for symptoms of depression and anxiety by asking three simple questions. Over the past two weeks, have you been bothered more than half the days by

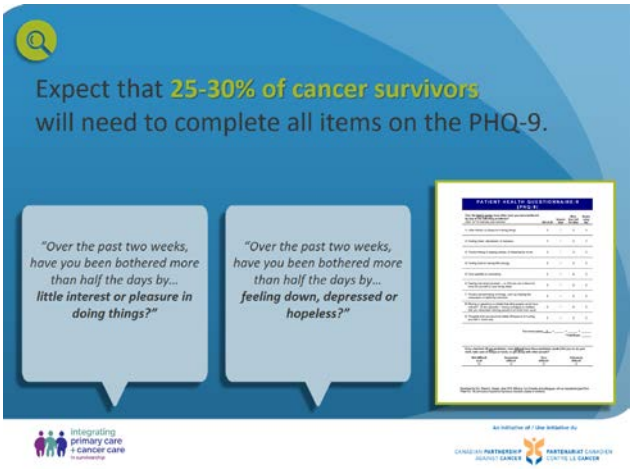
1. little interest or pleasure in doing things?
2. feeling down, depressed, or hopeless?
3. not being able to stop or control worrying, or have you felt nervous or on edge?



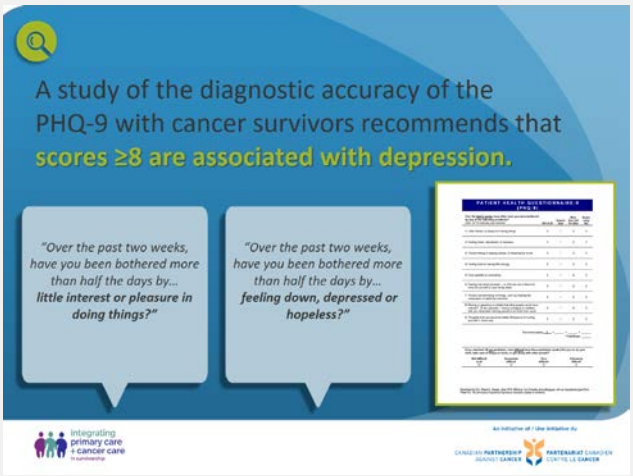
The first 2 questions are from the Patient Health Questionnaire PHQ-9 for Depression.



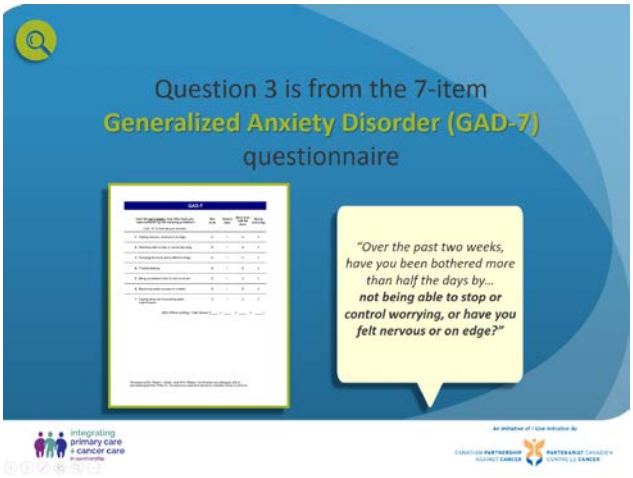
Patients who responded affirmatively to either, or both of the first two screening questions may be considered at risk for depression and should be encouraged to complete the remaining seven questions of the PHQ-9, which has been included as an attachment to this course.



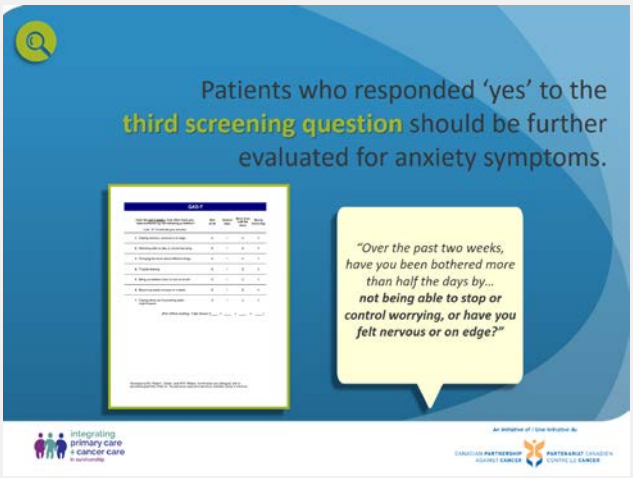
Expect that 25-30% of cancer survivors will need to complete all items on the PHQ-9.



A study of the diagnostic accuracy of the PHQ-9 with cancer survivors recommends that scores of eight or higher are associated with depression.



Question three is from the seven-item Generalized Anxiety Disorder (GAD-7) questionnaire, which has also been included as an attachment to this course.

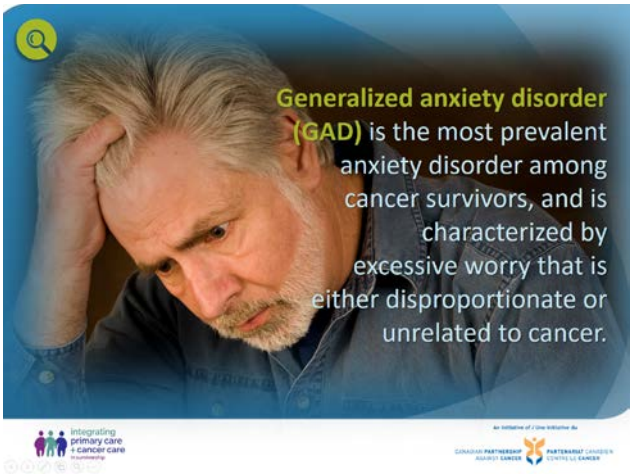


Patients with a positive response to the third screening question should be further evaluated for anxiety symptoms by completing the remaining questions on the GAD-7.

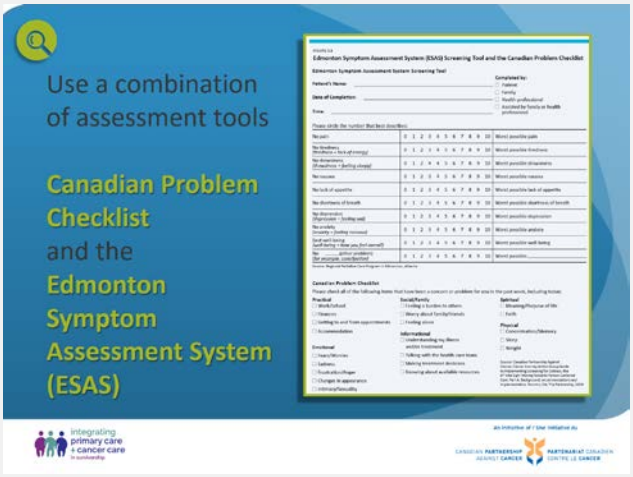
Patients with a PHQ-9 score of at least eight should be further evaluated. In addition to screening for depression and anxiety, healthcare providers should anticipate mental health needs and provide all cancer survivors with referral to supportive care services in their clinic settings or community.

This includes engaging patients in discussion about:

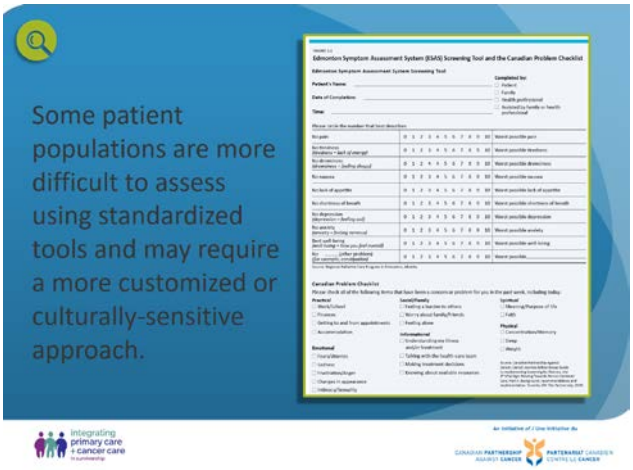
- Normal stress in the context of a cancer diagnosis
- Specific stress management strategies
- Availability of online, institutional, or community-based social support services
- Availability of financial supports
- Recognizing the onset and severity of the signs and symptoms of stress, anxiety and depression



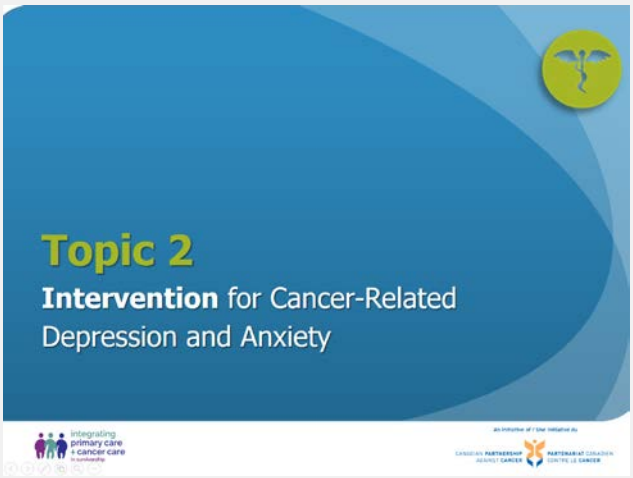
Generalized anxiety disorder (GAD) is the most prevalent of all anxiety disorders among cancer survivors, and is characterized by excessive worry that is either disproportionate or unrelated to cancer.



Evaluating these patients may include using a combination of assessment tools, such as the Canadian Problem Checklist, followed by the Edmonton Symptom Assessment System (ESAS), commonly called the COMPASS Tool. Both of these have been included as attachments to this course.

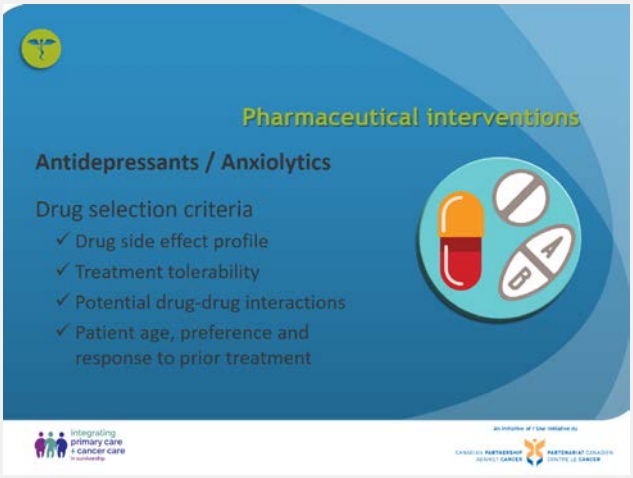


Important to note is that some patient populations, such as those with cognitive impairments, members of other cultures and older adults, are more difficult to assess for depression and anxiety using standardized tools and may require a more customized or culturally-sensitive approach.



Topic 2: Intervention for Cancer-Related Depression and Anxiety

Psychological interventions may include cognitive, behavioural, educational, relaxation or yoga. These interventions should be delivered by trained professionals, and monitored for effectiveness.



Pharmacological interventions for depression and anxiety include anti-depressants and anxiolytics, with consideration for the following drug selection criteria:

- Drug side effect profile;
- Treatment tolerability
- Potential drug interactions; as well as
- Patient age, preference and response to prior treatment.

Healthcare providers are encouraged to consider short-term prescriptions with regular monitoring for adherence, side effects and adverse events.

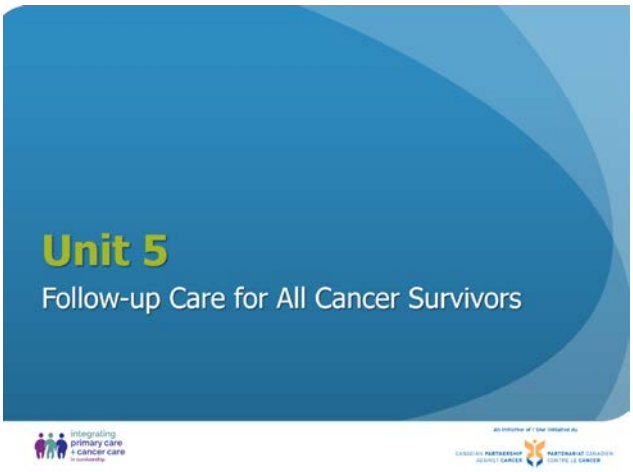
Serotonin–norepinephrine reuptake inhibitors (SNRIs) are a good first choice, because they provide effective treatment for both depression and anxiety states, as well as the vasomotor symptoms that commonly accompany anti-estrogen or anti-androgen therapies, and the pain associated with chemotherapy-induced peripheral neuropathy.

Psychosocial or group therapy interventions should be
Designed to help patients with identifying stressors, managing stress, optimizing social supports, as well as coping with the physical symptoms, body changes and lifestyle modifications imposed by a cancer diagnosis. It should be delivered by a trained professional and structured in nature.

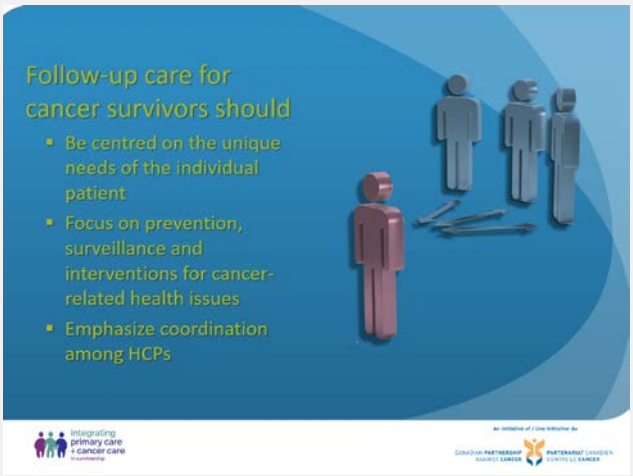
Healthcare providers are strongly encouraged to identify and evaluate the availability and accessibility of mental health resources in their own community in order to make such referrals.

Healthcare providers should assess compliance and patient satisfaction with prescribed interventions as frequently as every two weeks to monthly, or until the symptoms have subsided.

If compliance is poor, discuss obstacles with the patient and then implement a treatment plan that presents fewer challenges. If symptom reduction or treatment satisfaction is poor despite good compliance for 8 weeks, treatment should be modified or a referral considered. If symptoms are well controlled or the stressors are no longer present, consider tapering treatment.



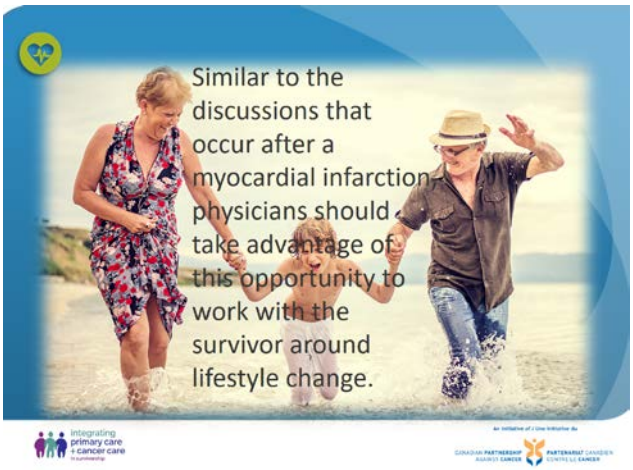
Unit 5: Follow-up Care for All Cancer Survivors



Follow-up care for cancer survivors should be centred on the unique needs of the individual patient with a focus on prevention, surveillance, and interventions for cancer-related health issues. It should also emphasize coordination among healthcare providers.

Unit 5 addresses one topic: The Prevention of Recurrent and New Cancers and Other Late Effects

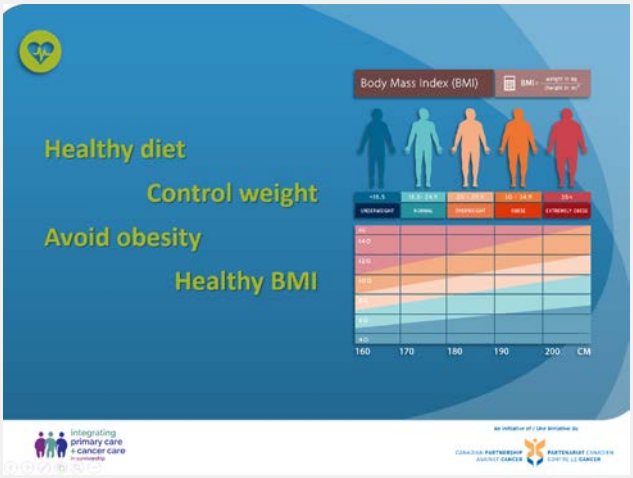
All cancer survivors, regardless of cancer type, are at increased risk for new primary cancers, recurrent cancer, long-term, and late-onset effects stemming from both the cancer experience and treatment toxicities. Many also face an increased risk for other comorbidities such as diabetes and cardiovascular disease.



A cancer diagnosis can provide physicians with a "teachable moment“ as survivors are particularly motivated to adopt healthy lifestyle behaviours. Similar to the discussions that occur after a myocardial infarction, physicians should take advantage of this opportunity to work with the survivor around lifestyle change.

Current clinical practice guidelines advocate for the promotion of healthy lifestyles to all cancer patients.

This includes reminding patients that weight management, physical activity and healthy eating behaviours throughout life may reduce cancer risk, and making specific action-oriented recommendations.



Instruct patients to maintain a healthy diet to control weight, avoid obesity, and achieve as healthy a BMI as possible.

Dietary supplements are not recommended for the purpose of cancer control.

Eat lots of fruits, vegetables, and whole grains. Avoid red and processed meats, sugars, saturated and trans fats.

Alcohol is a known human carcinogen. Limit alcohol intake to no more than one drink per day for women, and no more than two drinks per day for men.

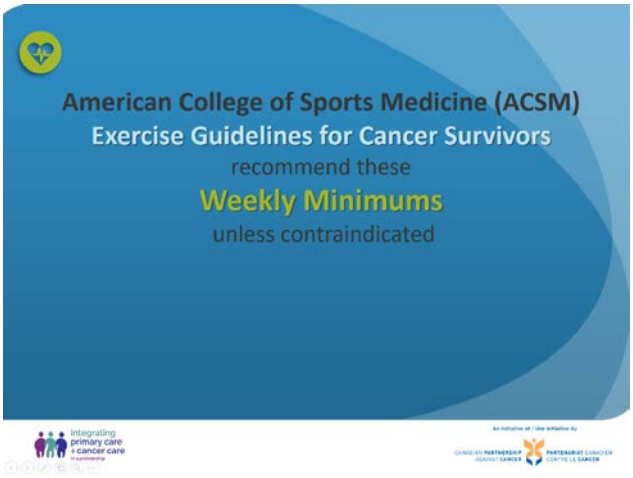
Stop using tobacco products, or minimize exposure to tobacco used for ceremonial reasons.

Use clothing as a first defense against UVA and UVB rays.

Apply a water-resistant sunscreen that offers UVA and UVB protection with an SPF of at least 30 directly to exposed skin.

Re-apply sunscreen either every two hours or immediately after swimming or excessive sweating.

To see health benefits from exercise, cancer survivors should be strongly encouraged to avoid prolonged sedentary behaviours and to be as physically active as their capabilities and condition will allow. Patients should strive to meet at least minimum physical activity guidelines.



Current ACSM exercise guidelines for cancer survivors recommend these weekly minimums, unless contraindicated.

Try to accumulate 2 ½ hours of moderate- to vigorous-intensity aerobic activity. This can be accomplished in just half an hour each day, five days a week.

Walking programs are generally considered safe for cancer survivors. Any survivor capable of adopting and adhering to a regular walking program should be encouraged to do so, and may begin without any formal exercise or stress testing.

Each week, do at least two sessions of strengthening, balance, and flexibility exercises for all major muscle groups. Patients may benefit from physical rehabilitation programs that teach at-home resistance exercises using simple, inexpensive devices such as resistance bands and tubing.

Resistance exercise can also be accomplished with multimodal exercise programs, such as cross-training, circuit training, or sport participation. These activities combine the benefits of aerobic and resistance exercise into a single session as well as provide patients with psychosocial opportunities.

Multimodal exercise programs should be individualized for each cancer survivor by a certified exercise professional or licensed physical rehabilitation specialist.

A number of recent studies on treatments for cancer-related fatigue support the use of mind-body interventions such as Yoga.

Among the benefits of Yoga cited in the literature are statistically significant improvements in fatigue, mood, vigor and quality of life; as well as strength, flexibility and overall physical functioning.

In fact, a study on the effects of yoga on cancer-related fatigue among breast cancer survivors continued to find statistically significant improvements in fatigue at 3- and 6-month follow-up intervals. Not only that, but yoga participants were more confident about their ability to manage fatigue and its impact on their lives.

There are always some acceptable levels of risk inherent to physical activity participation; however, some cancer survivors are at moderate to high risk for exercise-induced adverse events as a result of comorbidities and the long-term effects of cancer treatment. Higher-risk patients should be educated about any anticipated or current physical limitations, cautioned about activities that may exacerbate symptoms or result in injury, and encouraged to work with an exercise professional in a more controlled setting.

Chemotherapy-induced peripheral neuropathy affects 38% of cancer survivors. Up to 10% of survivors experience severe, chronic pain that interferes with physical functioning. Individuals with certain cancers, including breast, prostate and colorectal cancers, are at increased risk for fractures.

These patients are considered at moderate risk for exercise-related adverse events, and should receive a stability, balance and gait analysis from a certified exercise professional or licensed physical rehabilitation specialist. Exercises may need to be modified to reduce injury risk.

Subclinical cardiotoxicity has been observed in up to 30% survivors, manifesting in such conditions as cardiomyopathy, myocarditis, pericarditis, acute coronary syndromes, and congestive heart failure.

This is most often found in patients who have received higher doses of anthracyclines, such as doxorubicin and epirubicin. These patients are considered at higher risk for exercise-associated adverse events.

They should be supervised by a trained professional while exercising, with program progress guided by patient tolerance.

As many as 30% of breast cancer survivors have lymphedema and are considered at moderate-risk for exercise-related adverse events when performing resistance or strength exercises with the affected limb.

These patients should be supervised by a trained professional while doing upper-body strength-training exercises. Individuals with lymphedema should be encouraged to wear a compression garment during exercise begin using low resistance and low repetitions and progress gradually.

Unit 6 of this online course has been divided into three cancer-specific tracks. Each track provides specific management strategies for survivors of breast, prostate and colorectal cancers.

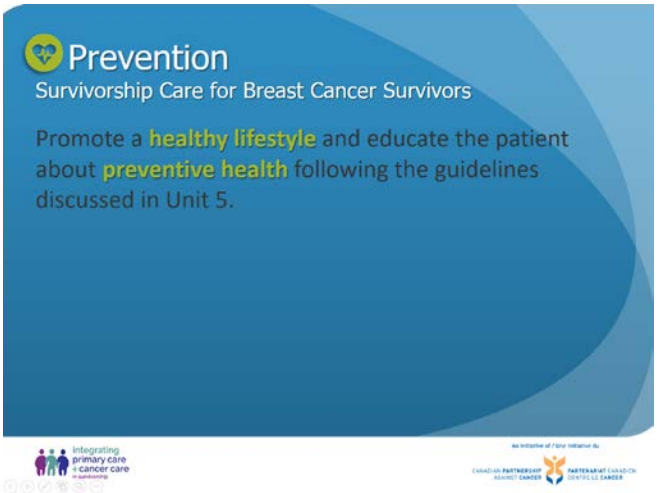
Participants of this curriculum are required to select and complete only one of these tracks. Choose the track that corresponds with your Interspecialty Workshop. You may come back to view the others at any time.

Unit 6, Track 1: Survivorship Care for Breast Cancer Survivors

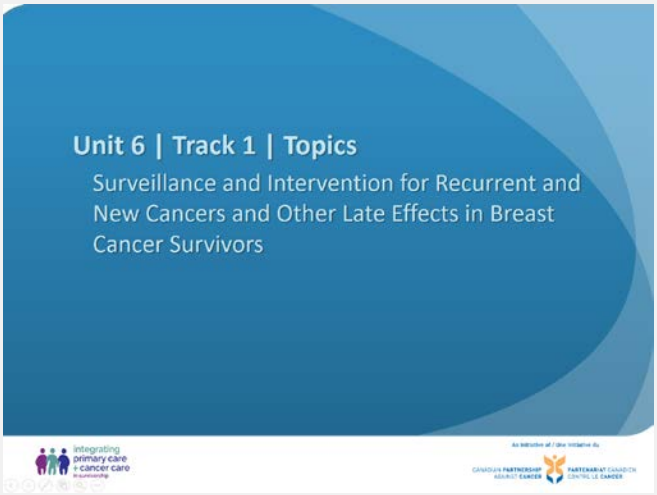
The goals of survivorship care for breast cancer in a primary healthcare setting are:

- Prevention - to provide education and support to the patient
- Surveillance – to detect recurrence and new cancers, and
- Intervention – to address the complications of cancer and its treatment

Coordination of care among healthcare providers and patients is discussed in greater detail in the Interspecialty Workshop component of this curriculum.



Promote a healthy lifestyle and educate the patient about preventive health following the guidelines discussed earlier in Unit 5.



Unit 6, Track 1 focuses on the surveillance and intervention for recurrent and new cancers and other late effects in breast cancer survivors.

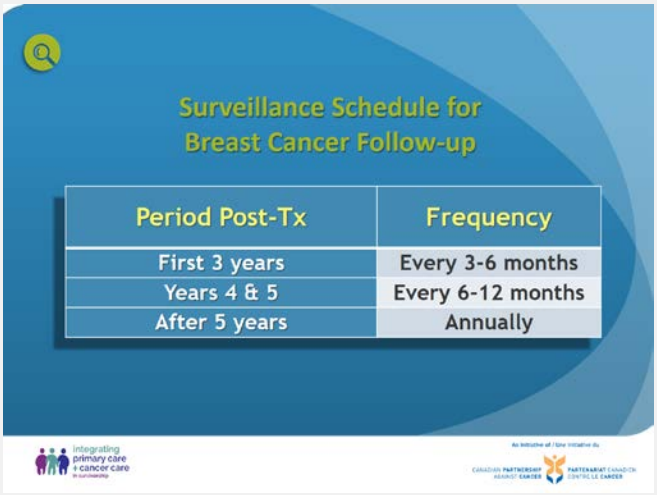
Topic 1: Surveillance for Recurrent and New Cancers and Other Late Effects in Breast Cancer Survivors

The current 5-year RSR for breast cancer survival is 82%.

Statistically, local recurrence of breast cancer in the ipsilateral breast following breast-conserving surgery and radiation therapy is expected to occur in ~1% of women annually, and is potentially curable with mastectomy.

New cancer in the contralateral breast is expected to occur in 15% of women and tends to occur more than 20 years following an original breast cancer diagnosis.

In addition to educating patients about general preventive health, breast cancer survivors should be trained to watch for local and distant symptoms of recurrence as well as the late effects of cancer treatment.



The following surveillance schedule is recommended for breast cancer follow-up.

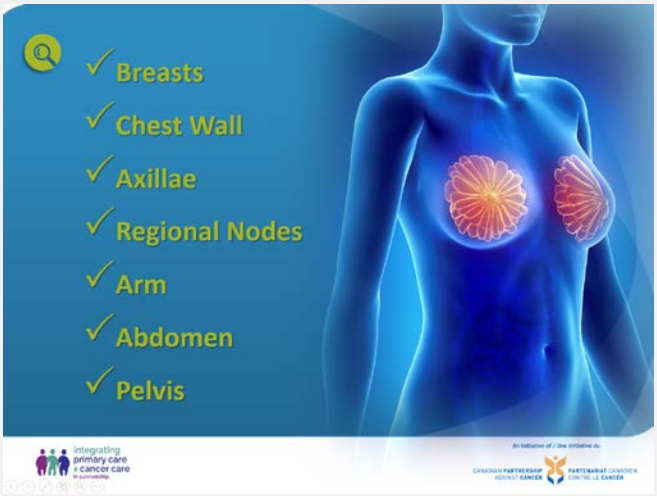
- Every 3-6 months for the first 3 years;
- Every 6-12 months in years 4 and 5; moving towards
- Annual schedule

At each of these visits, the following surveillance methods should be practiced.

Engage the patient in a discussion about current concerns and issues related to physical, emotional, and psychosocial health.

Provide support services or refer the patient to the appropriate resources.

Take a thorough medical history and conduct a careful physical exam.



In the physical, be sure to examine the breast(s), chest wall, axillae, regional nodes, arm, abdomen, and pelvis.

Encourage the patient to perform a monthly breast self-exam.

Women should be advised to watch for masses in the breasts or chest wall, nipple discharge or skin rash and enlarged nodes.

Bone metastases are the most common site of distant recurrence. Patients should be asked about symptoms of metastatic disease and be reminded to report any suspect symptoms. These include bone pain, cough, shortness-of-breath, chest pain, right upper quadrant (RUQ) abdominal pain, nausea, fatigue, unintended weight loss, headaches, and confusion.

Mammography should begin 6-12 months post-treatment but not sooner.

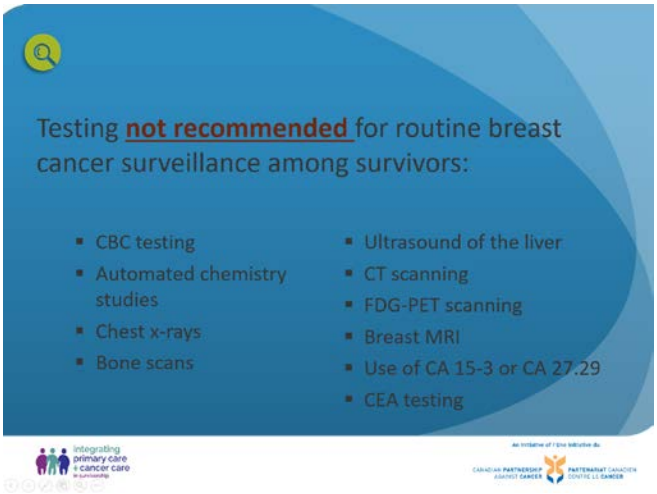
Move toward an annual schedule if findings are normal and stable.

Identify women who are at high risk for familial breast cancer syndromes and refer for genetic counselling.

Patients meeting these criteria are considered high risk, and should be referred:

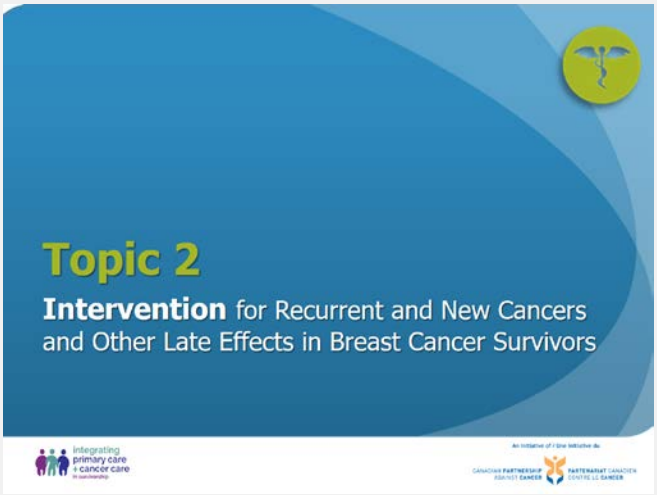
- Women of Ashkenazi Jewish heritage
- Women with a personal history of ovarian cancer, or women with a family history of ovarian cancer in any first- or second-degree relatives
- Women with a family history of breast cancer…

- Any first-degree relative diagnosed before 50 years of age
- Two or more first- or second-degree relatives diagnosed at any age
- Any relative with a bilateral breast cancer diagnosis
- Any male relative diagnosed with breast cancer



Important to note is that the following testing is not recommended for routine breast cancer surveillance:

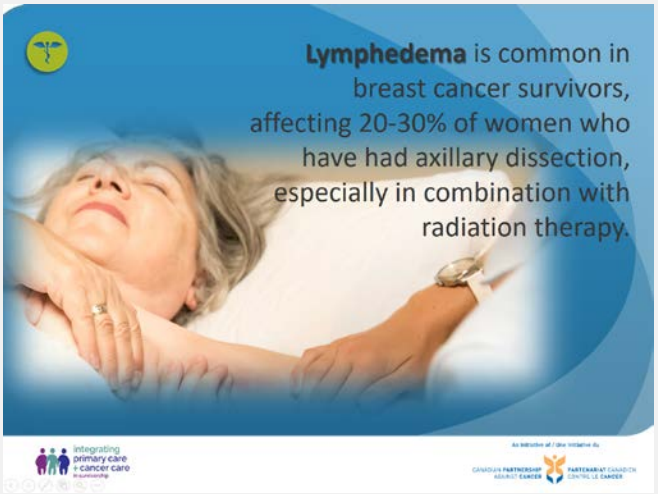
- CBC testing
- Automated chemistry studies
- Chest x-rays
- Bone scans
- Ultrasound of the liver
- CT scanning
- FDG-PET scanning
- Breast MRI
- Use of CA 15-3 or CA 27.29
- CEA testing



Topic 2: Intervention for Recurrent and New Cancers and Other Late Effects in Breast Cancer Survivors

Among the common physical complications of breast cancer treatment are:

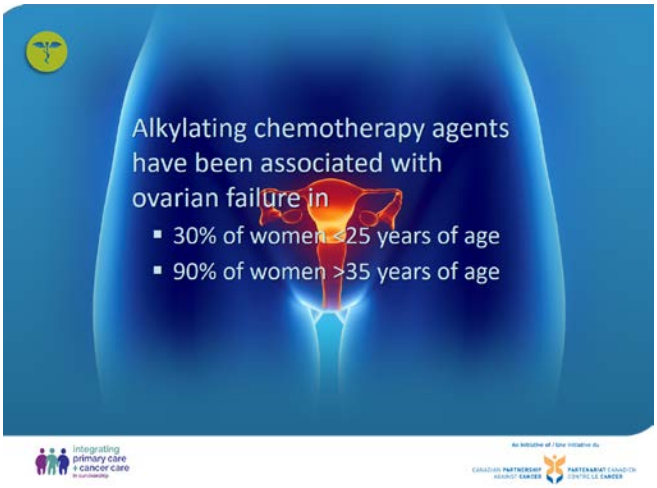
- Lymphedema
- Chronic Pain
- Neuropathy
- Ovarian Failure
- Increased Risk for Uterine Cancer
- Hot Flushes
- Musculoskeletal Disorders, including
- Arthritis and Osteoporosis
- Congestive Heart Failure
- Myelodysplasia or Leukemia
- 'Brain Fog'



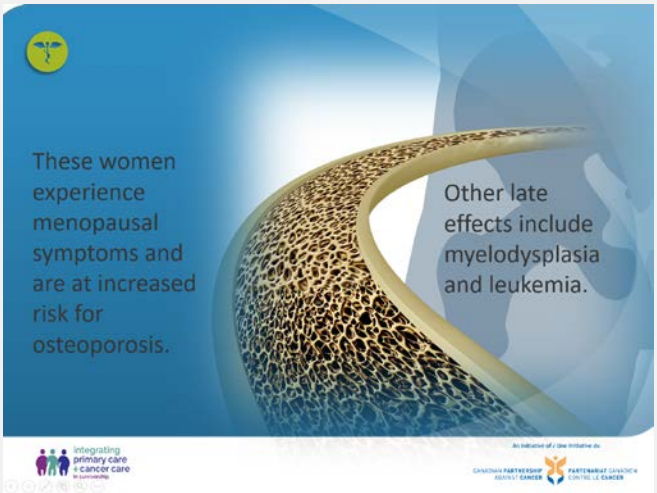
Lymphedema is common in breast cancer survivors, affecting 20-30% of women who have had axillary dissection, especially in combination with radiation therapy.

Important to note, is that the practice of initially removing only "sentinel" lymph nodes has reduced the incidence of lymphedema, but it still can occur.

Other common issues reported by women who have had surgical intervention and/or radiation therapy are post-mastectomy pain, shoulder stiffness and brachial plexopathy.

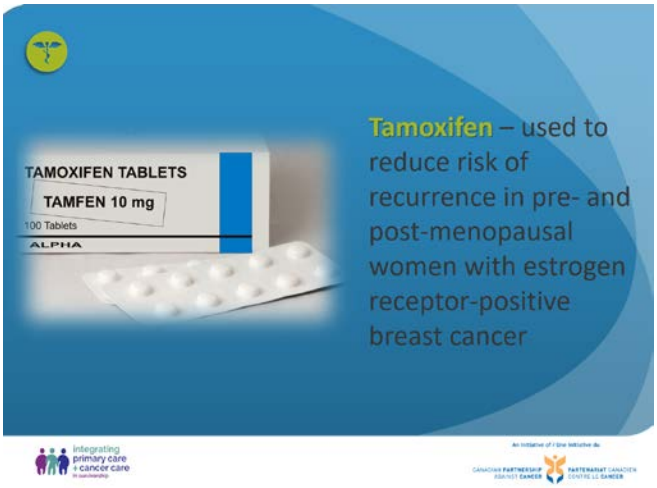


Alkylating chemotherapy agents such as cyclophosphamide have been associated with ovarian failure in 30% of women under 25-years-of-age, and 90% of women aged 35-years and older.

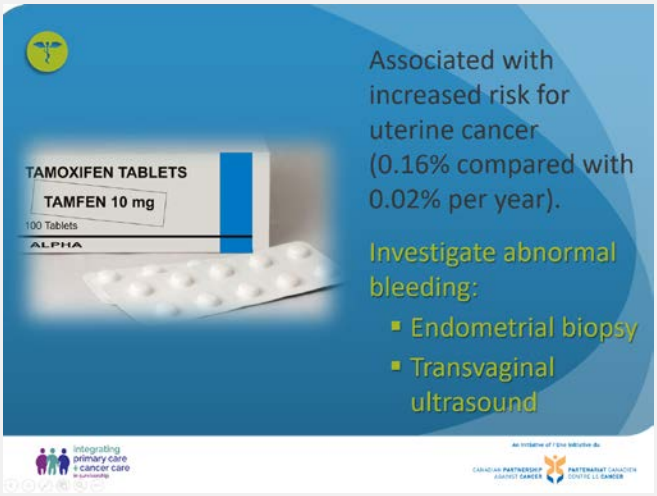


These women experience menopausal symptoms and are at increased risk for osteoporosis.

Other very uncommon late effects of cyclophosphamide include myelodysplasia and leukemia.

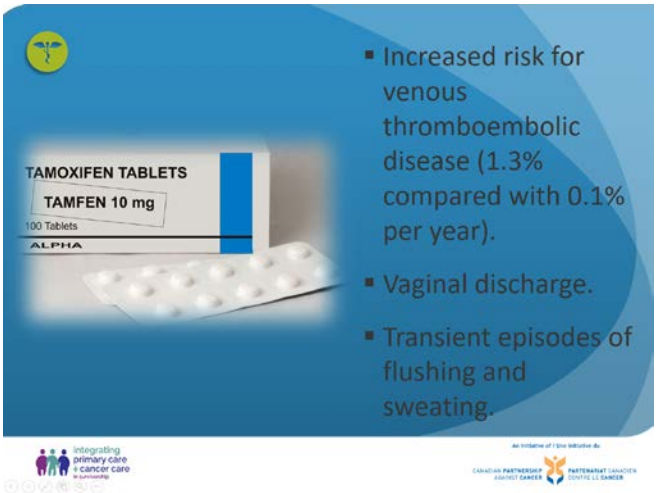


Tamoxifen is used to reduce risk of recurrence in pre- and post-menopausal women with estrogen receptor-positive breast cancer.

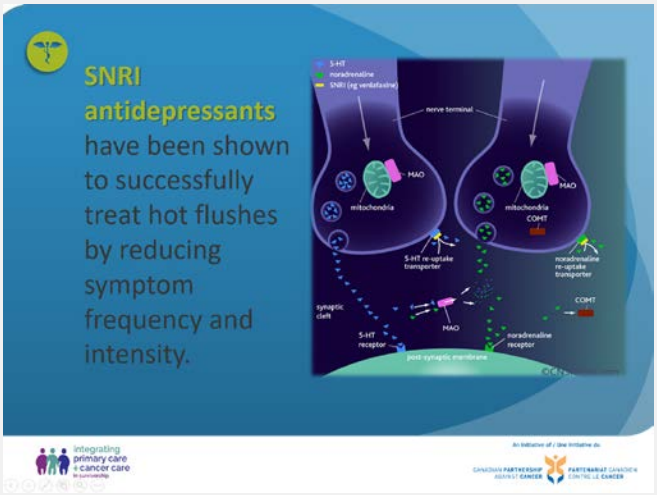


Tamoxifen is associated with an increased risk for uterine cancer (0.16% compared with 0.02% per year).

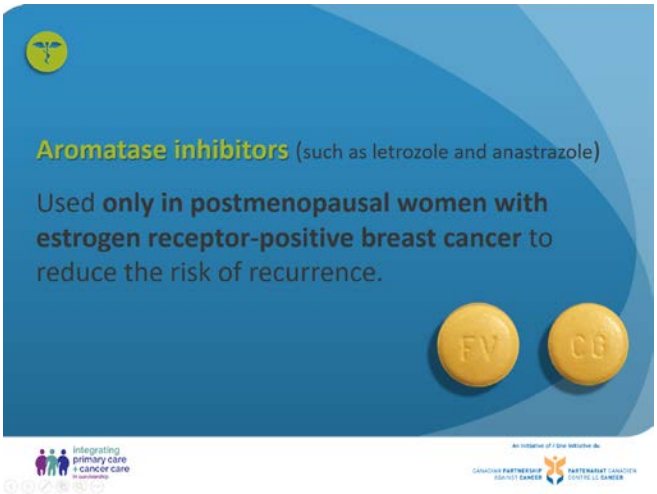
Abnormal bleeding should be investigated with endometrial biopsy and/or transvaginal ultrasound. These procedures do not need to be performed in women without symptoms.



Other tamoxifen side effects include increased risk for venous thrombo-embolic disease (1.3% compared with 0.1% per year), vaginal discharge and transient episodes of flushing and sweating.



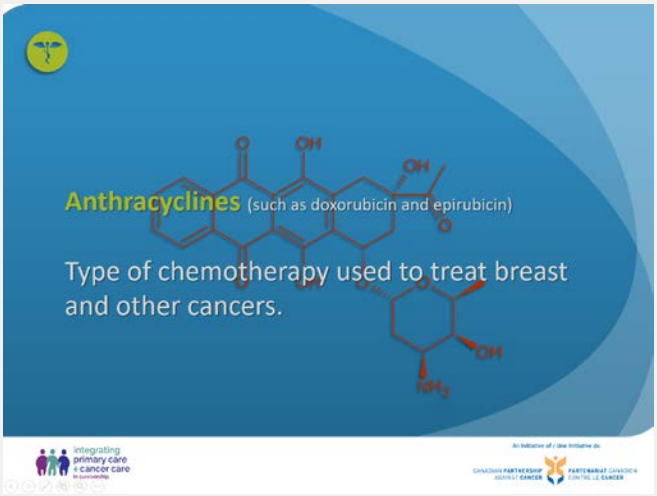
SNRI antidepressants have been shown to successfully treat hot flushes by reducing symptom frequency and intensity.



Aromatase Inhibitors, such as letrozole and anastrazole, are used only in postmenopausal women with estrogen receptor-positive breast cancer to reduce the risk of recurrence.

Common Letrozole side effects include hot flushes, arthritis, arthralgia, myalgia, and osteoporosis.

Hot flashes can again be managed with SNRIs, and joint pain will usually respond to physical activity and NSAIDs.



Anthracyclines (such as doxorubicin and epirubicin) are a type of chemotherapy used to treat breast and other cancers.

These medications are associated with a 1-2% risk of developing congestive heart failure. The disease may present anywhere from within the first year up to 15 years following chemotherapy.

The best method for addressing this health concern is by raising physician and patient awareness, and by actively managing other risk factors for cardiovascular disease.

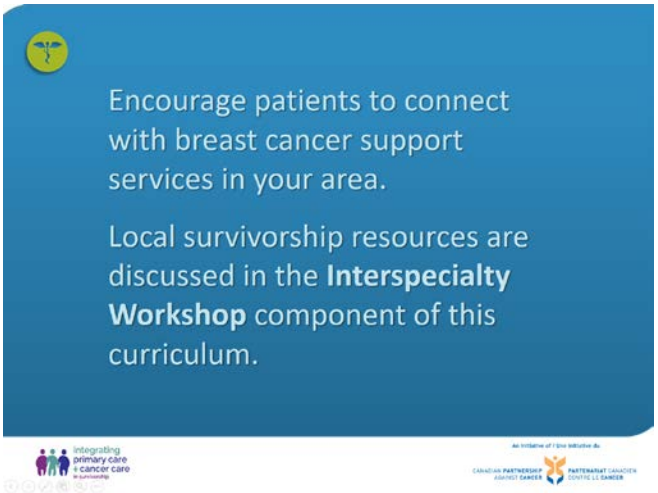
“Chemo brain” or “Brain Fog" refers to problems with attention, concentration, thinking and memory. It affects up to 75% of patients while receiving chemo or radiation therapy, and up to 35% of patients for months following these treatments.

The severity of these symptoms is often influenced by the patient’s age, mental health status and coping abilities.

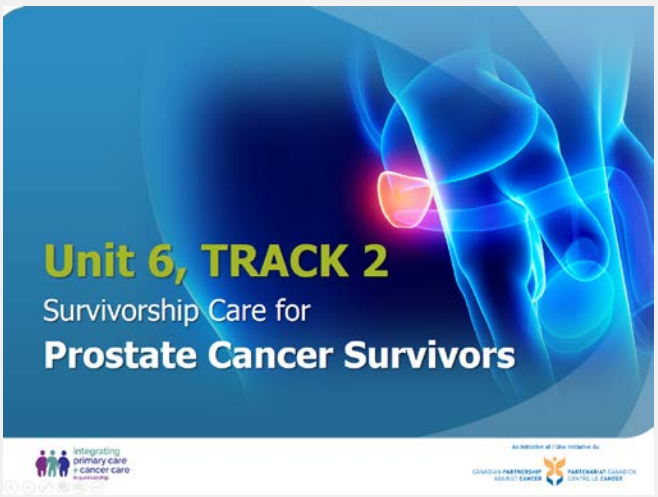
Symptom severity may be attenuated with breast cancer support services that offer strategies specifically for coping with brain fog.

Recovery after breast cancer can be assisted by psychological and emotional support. Some effective methods of dealing with the psychological consequences of cancer and its treatment include:

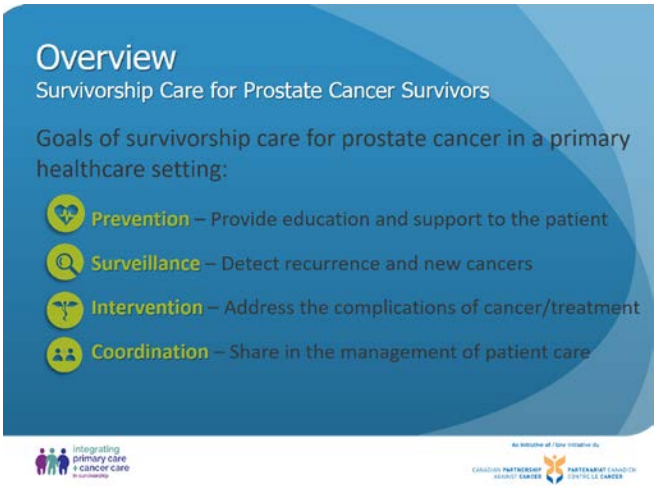
- Mindful relaxation
- Physical activity
- Neurobics, or brain-training programs
- Psychoeducation
- Occupational therapy



Encourage patients to connect with breast cancer support services in your area. Local survivorship resources are discussed in the Interspecialty Workshop component of this curriculum.



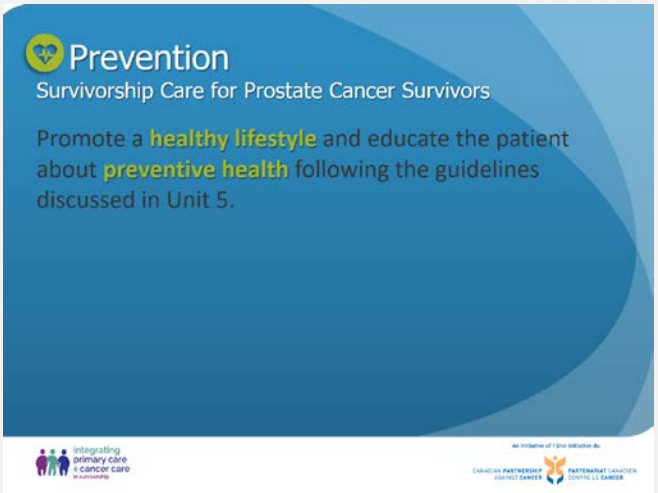
Unit 6, Track 2: Survivorship Care for Prostate Cancer Survivors



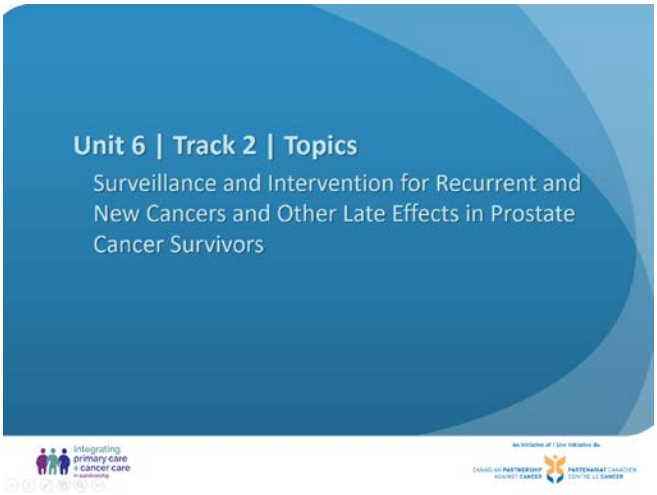
The goals of survivorship care for prostate cancer in a primary healthcare setting are:

- Prevention - to provide education and support to the patient
- Surveillance – to detect recurrence and new cancers, and
- Intervention – to address the complications of cancer and its treatment

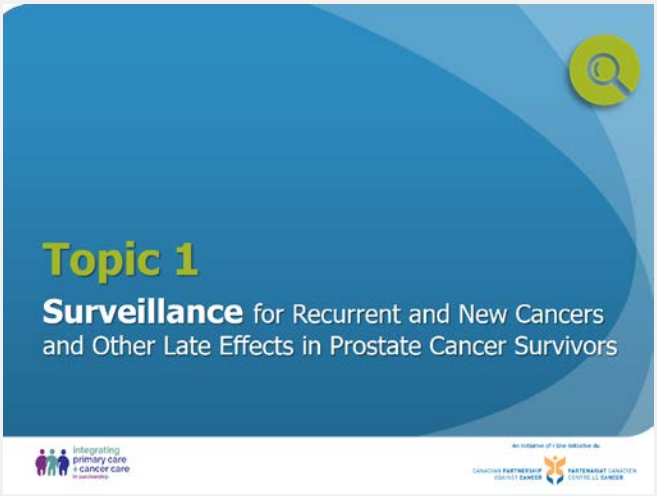
Coordination of care among healthcare providers and patients is discussed in greater detail in the Interspecialty Workshop component of this curriculum.



Promote a healthy lifestyle and educate the patient about preventive health following the guidelines discussed earlier in Unit 5.



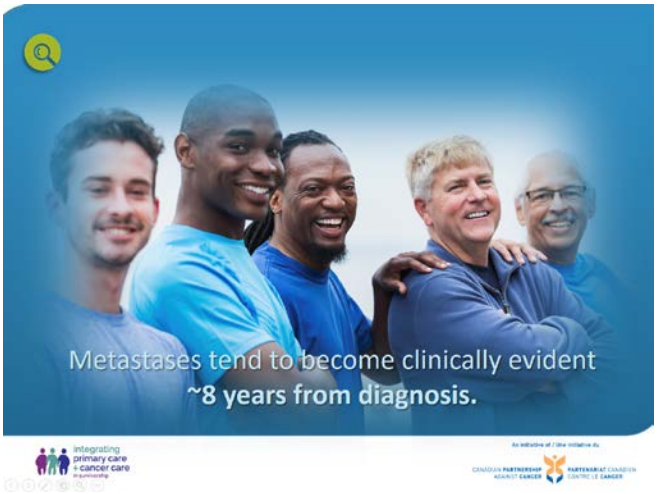
Unit 6, Track 2 focuses on the surveillance and intervention for recurrent and new cancers and other late effects in prostate cancer survivors.



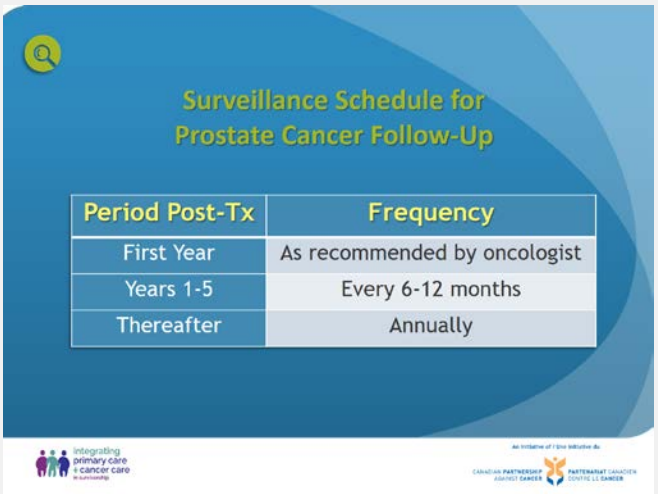
Topic 1: Surveillance for Recurrent and New Cancers and Other Late Effects in Prostate Cancer Survivors

In Canada, the current 5-year RSR for prostate cancer is 93%.

Most prostate cancer survivors die of other causes, usually cardiovascular disease.

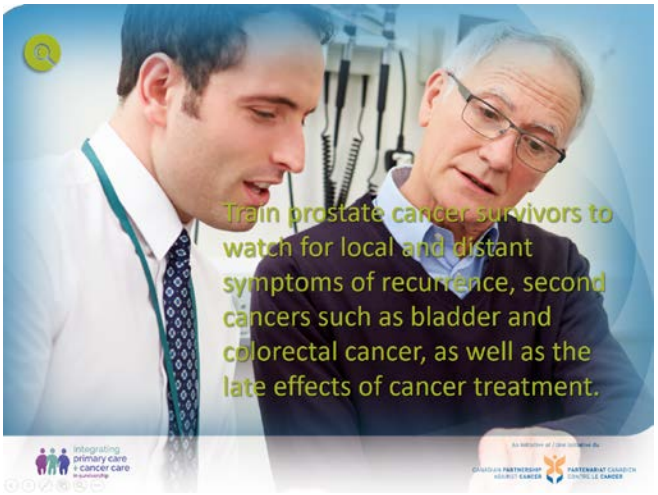


For those patients in which prostate cancer recurs, metastases tend to become clinically evident, on average, 8 years from diagnosis.

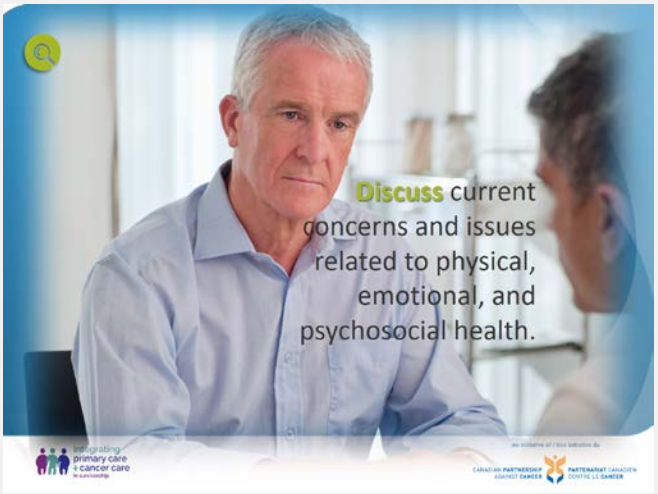


The following surveillance schedule is recommended for prostate cancer follow-up:

- Within the first year, see these patients as frequently as recommended by his oncologist
- In years 1-5, expect to see this patient every 6-12 months; and then
- Annually thereafter.



Prostate cancer survivors should be trained to watch for local and distant symptoms of recurrence, secondary cancers such as bladder and colorectal, as well as the late effects of cancer treatment.



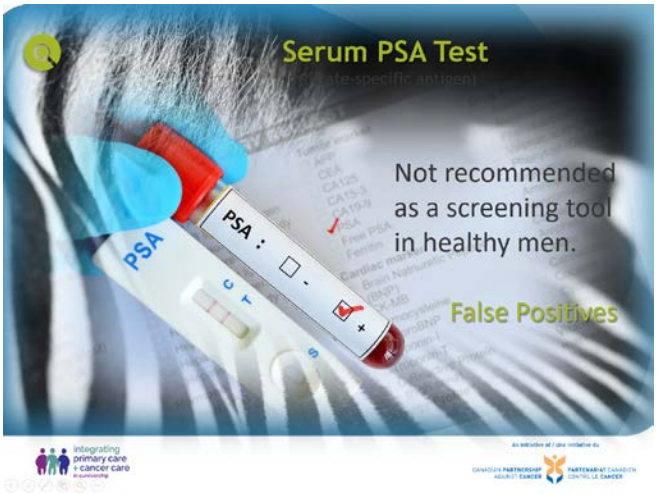
Engage the patient in a discussion about current concerns and issues related to physical, emotional, and psychosocial health.

Provide support services or refer the patient to the appropriate resources.

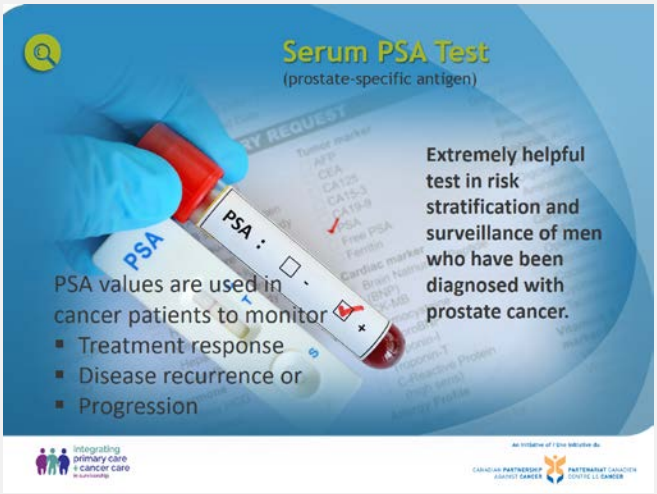
Take a careful medical history, and conduct a careful physical exam.

Conduct a digital rectal exam (DRE) if one has not been performed recently by another physician.

Order and interpret the PSA test.

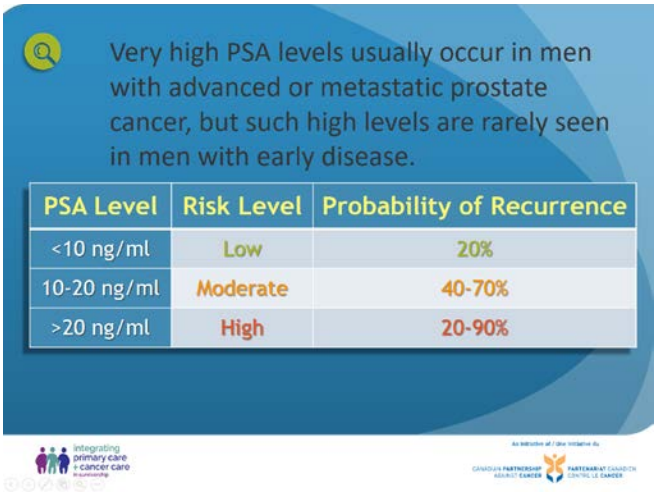


Important to note is that although PSA testing is no longer recommended as a screening tool in healthy men because it results in too many false positives, it remains useful in prostate cancer follow-up.

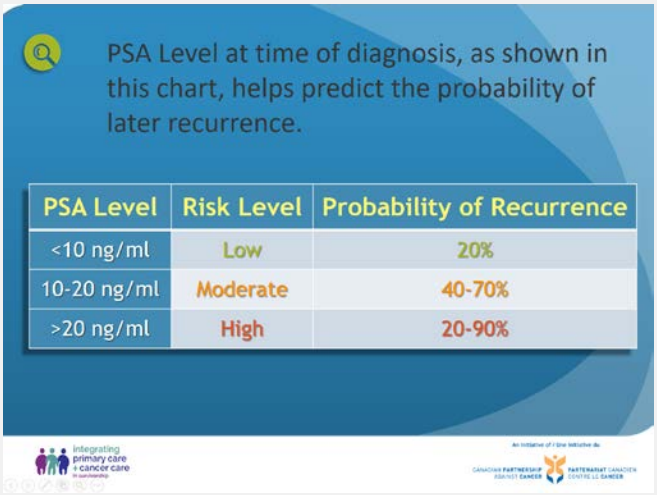


It remains an extremely helpful test in risk stratification and surveillance of men who have been diagnosed with prostate cancer.

PSA values are used in cancer patients to monitor treatment response, disease recurrence or progression.

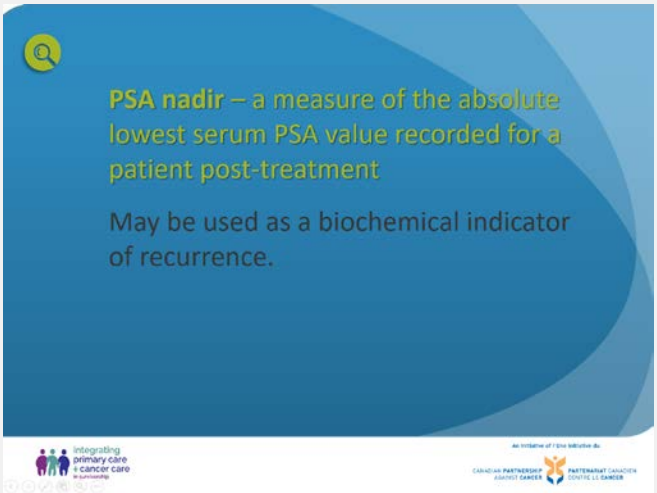


Very high PSA levels usually occur in men with advanced or metastatic prostate cancer, but such high levels are rarely seen in men with early disease.

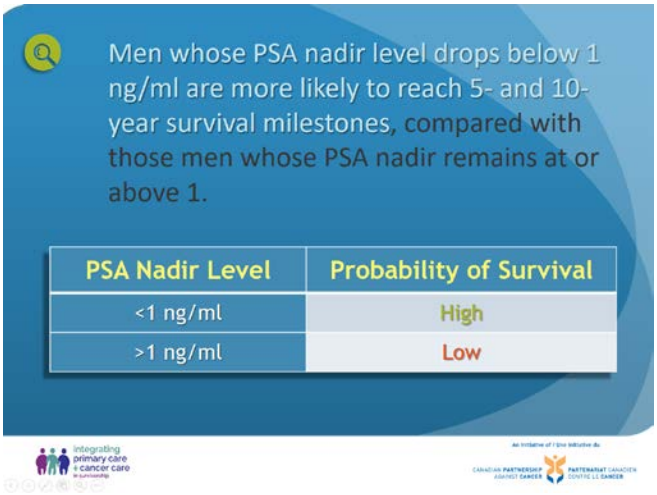


The PSA Level at time of diagnosis, as shown in this chart, helps predict the probability of later recurrence.

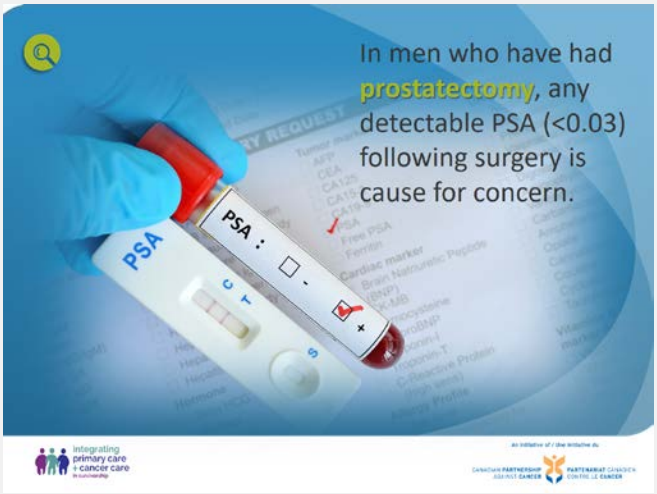
Over the 1-2 years following radiation therapy for prostate cancer, a man's serum PSA is expected to drop significantly.



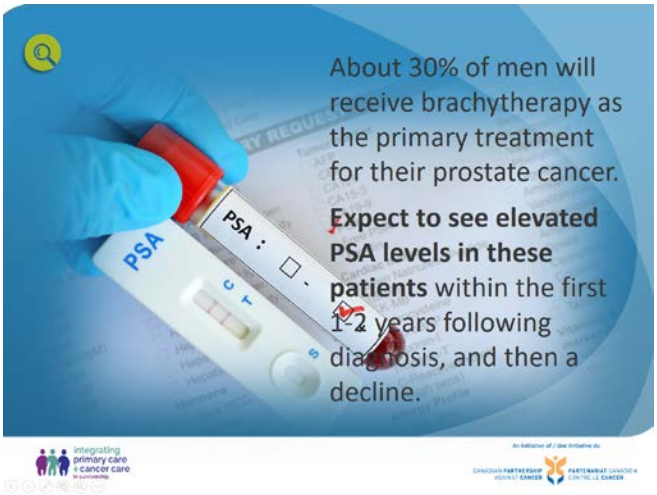
PSA nadir is a measure of the absolute lowest serum PSA value recorded for a patient post-radiation treatment. This value may be used as a biochemical indicator of recurrence.



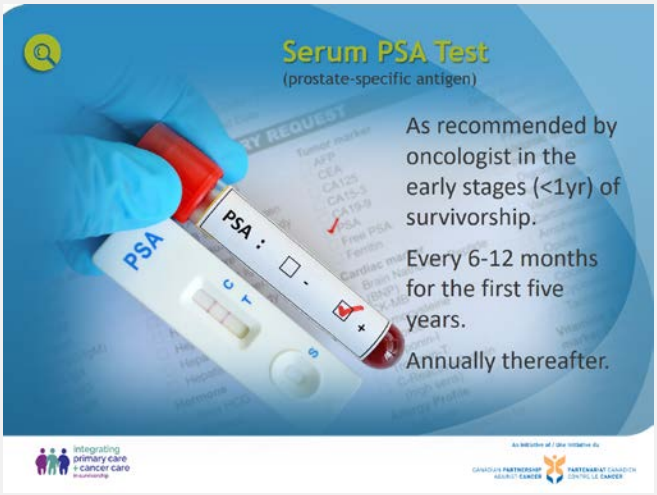
Men whose PSA Nadir Level drops below 1 ng/ml are more likely to reach 5- and 10-year survival milestones compared with those men whose PSA Nadir remains at or above 1.



In men who have had prostatectomy, any detectable PSA (<0.03) following surgery is cause for concern.

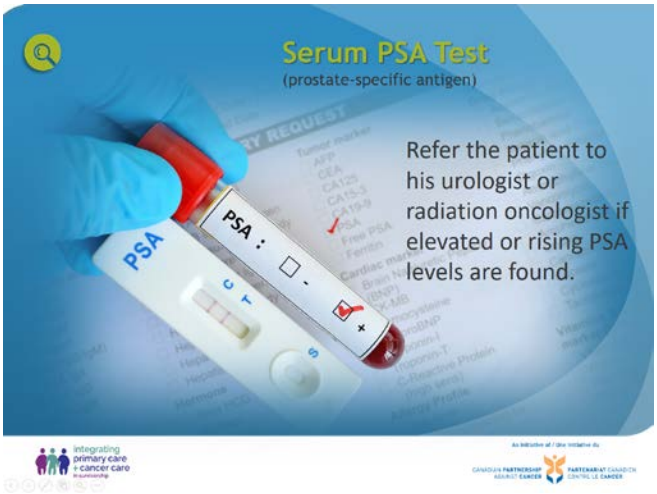


About 30% of men will receive brachytherapy as the primary treatment for their prostate cancer. Expect to see elevated PSA levels in these patients within the first 1-2 years following diagnosis, and then a decline.

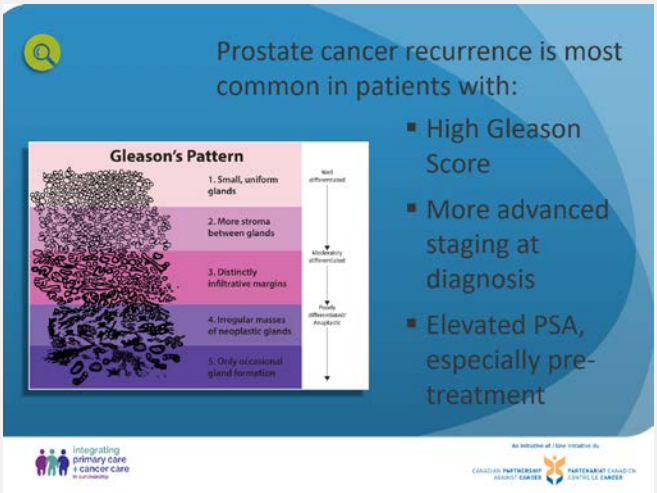


Measure serum PSA:

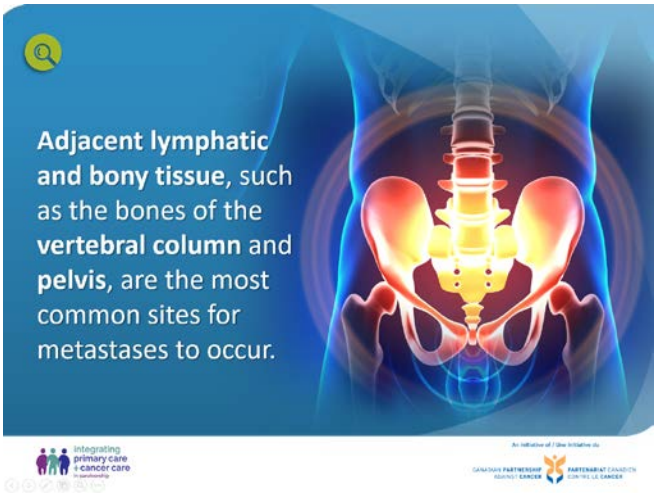
- As recommended by the oncologist in the early stages of survivorship (<1 year post-treatment)
- Every 6-12 months for the first five years and then
- Annually thereafter



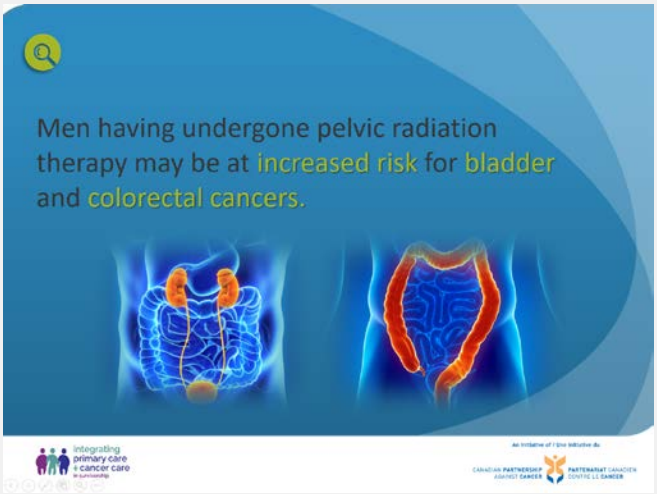
Refer the patient to his cancer specialist if elevated or rising PSA levels are found.



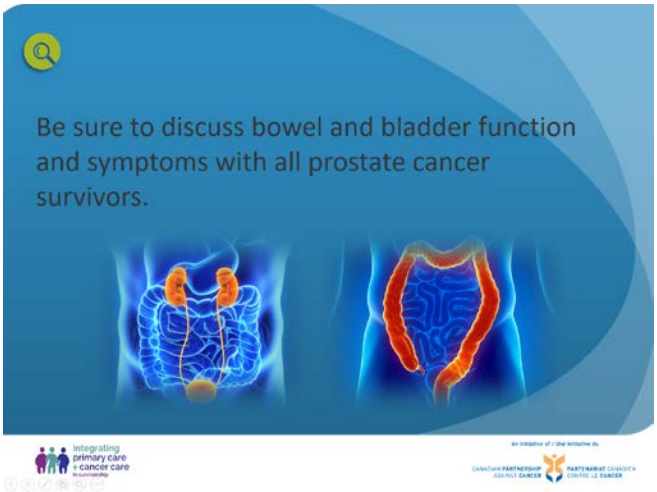
Although unlikely overall, prostate cancer recurrence is most common in those patients with a higher Gleason Score, more advanced staging at diagnosis and elevated PSA, especially pre-treatment.



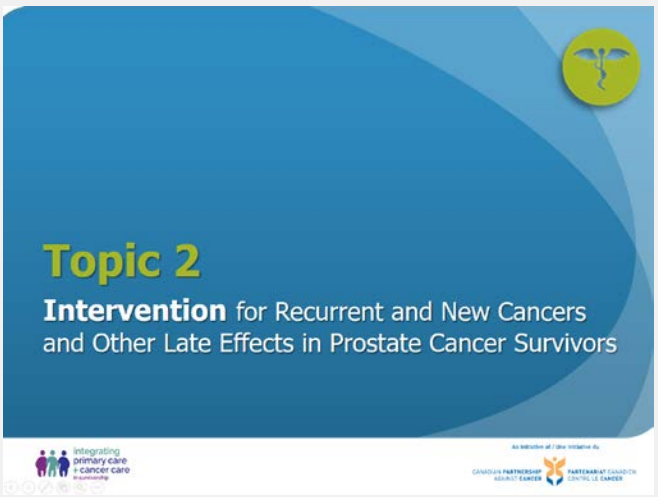
Adjacent lymphatic and bony tissue, such as the bones of the vertebral column and pelvis, are the most common sites for metastases to occur.



Men having undergone pelvic radiation therapy may be at increased risk for new primary bladder or colorectal cancers.



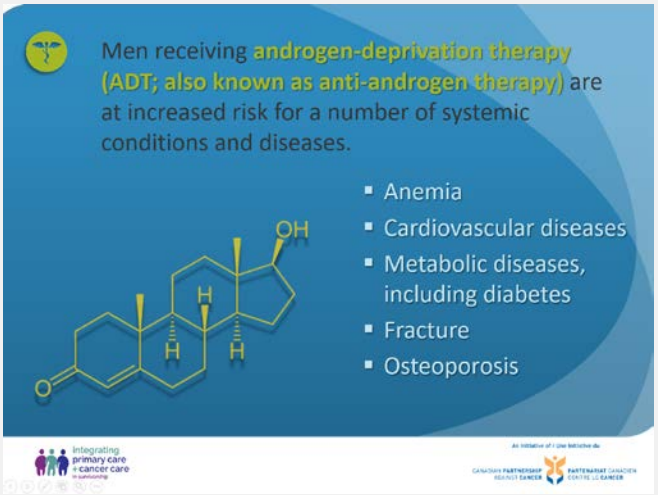
Be sure to discuss bowel and bladder function and symptoms with all prostate cancer survivors, and screen for recurrent or secondary cancers such as colorectal cancer.



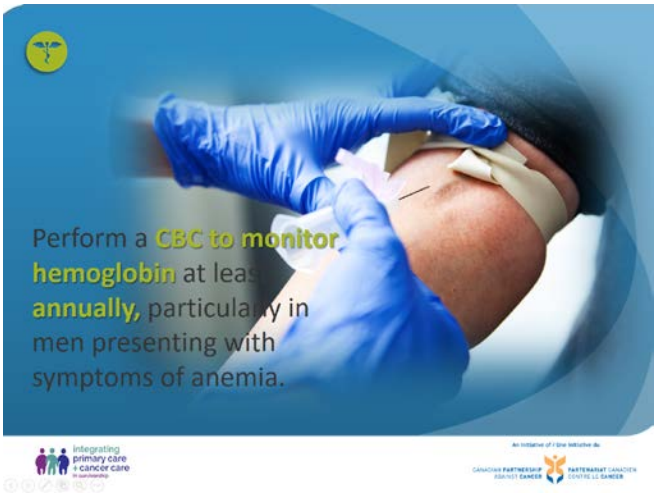
Topic 2: Intervention for Recurrent and New Cancers and Other Late Effects in Prostate Cancer Survivors

Among the common physical and psychosocial late effects of prostate cancer and treatment are:

- Anemia,
- Bowel and bladder dysfunction,
- Cardiovascular disease,
- Metabolic diseases such as diabetes,
- Emotional distress including anxiety and depression,
- Increased risk for fractures and osteoporosis,
- Sexual dysfunction,
- Psychological issues related to intimacy and body image, as well as
- Vasomotor symptoms.

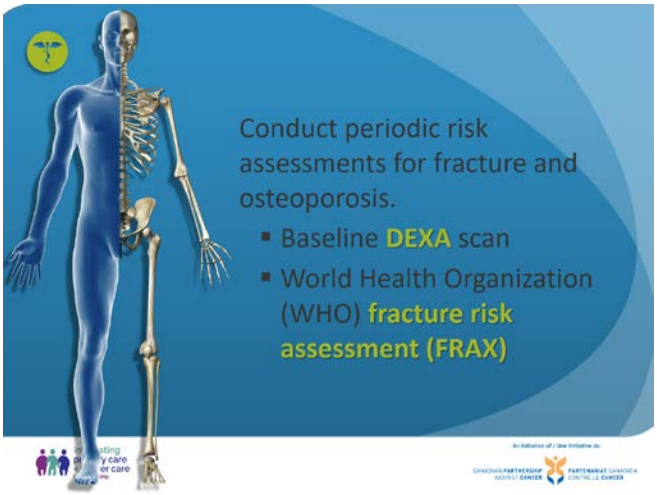


Men receiving androgen-deprivation therapy (ADT; also known as anti-androgen therapy) are at increased risk for numerous systemic conditions and diseases, including: anemia, cardiovascular and metabolic diseases including diabetes, fracture, and osteoporosis.



Perform a CBC to monitor hemoglobin levels at least annually, particularly in men presenting with symptoms of anemia, or annually.

Assess these patients for risk factors for cardiovascular disease, and actively manage their blood pressure, lipid profile and serum glucose, if elevated.



Men receiving ADT should also receive periodic risk assessments for fracture and osteoporosis. Use a baseline DEXA (dual energy x-ray absorptiometry) scan and calculate a FRAX (WHO fracture risk assessment) score to assess individual risk. The WHO fracture risk assessment or FRAX tool has been included as an attachment to this course.

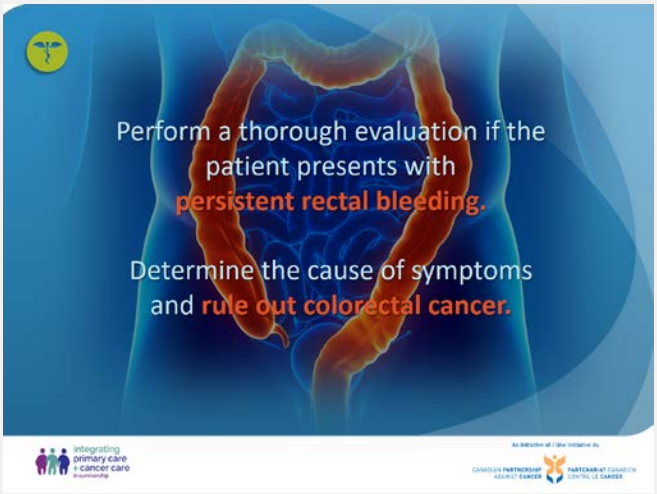
Determine the best strategy to optimize bone health, considering the risks and benefits of bone-targeted agents to this patient population. For example, either weekly oral bisphosphonate therapy (oral alendronate, 70 mg/wk) or an annual intravenous dose of 5 mg zoledronic acid may be prescribed.

Vasomotor symptoms such as hot flushes are also common in men receiving ADT. Both SNRI and SSRI antidepressants have been shown to successfully treat hot flushes by reducing symptom frequency and intensity.

Some men experience rectal bleeding following radiation therapy due to treatment-related proctitis. This diagnosis may need to be confirmed with sigmoidoscopy.

For these patients, rule out colorectal cancer and consult with the patient's radiation oncologist for appropriate management, which may include corticosteroid suppositories or anti-inflammatories to decrease inflammation, stool softeners and dietary changes.

For these patients, rule out colorectal cancer and consult with the patient's radiation oncologist for appropriate management, which may include corticosteroid suppositories or anti-inflammatories, stool softeners and dietary changes.

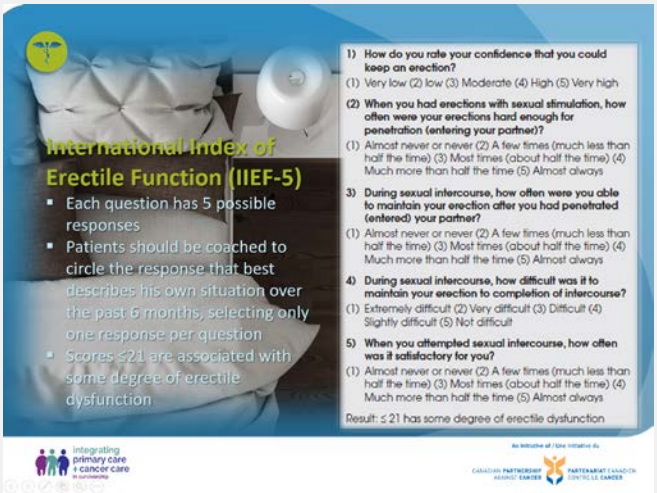


Perform a thorough evaluation if the patient presents with persistent rectal bleeding to determine the cause of symptoms and to rule out colorectal cancer.

If rectal symptoms such as bleeding, sphincter dysfunction, rectal urgency and frequency persist, refer the patient to a gastroenterologist.

Sexual dysfunction, sexual intimacy and body image issues are frequently reported among prostate cancer survivors.

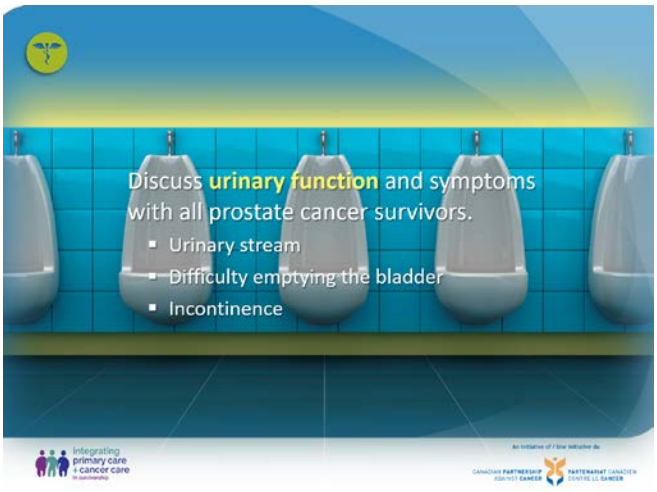
Encourage these patients to discuss sexual concerns and issues, and use validated instruments to monitor erectile dysfunction.



Such as the 5-item version of the International Index of Erectile Function (IIEF-5), which has been included as an attachment to this course.

Management for erectile dysfunction may include penile rehabilitation or prescription of phosphodiesterase type 5 inhibitors.

For patients experiencing sexual intimacy issues, consider referring both he and his partner to a mental health professional with expertise in sex therapy.

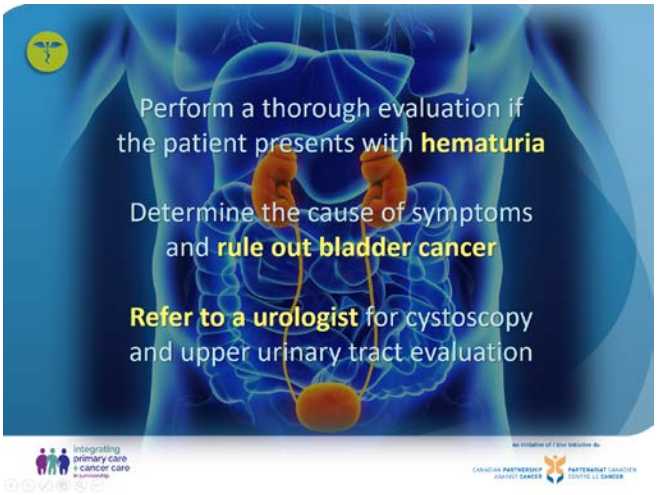


Be sure to discuss urinary function and symptoms with all prostate cancer survivors, including urinary stream, difficulty emptying the bladder and incontinence.

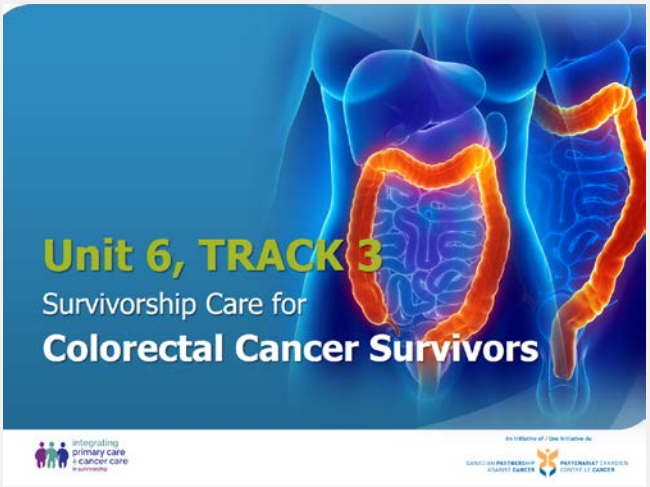
To address issues such as nocturia, frequency, and urgency, encourage patients to consider timed voiding and prescribe anticholinergic medications.

For patients experiencing a slow stream, an alpha-blocker may be prescribed. Men who have had prostatectomy may experience urinary incontinence. Encourage these patients to perform Kegel exercises or refer these survivors to a physiotherapist for pelvic floor rehabilitation.

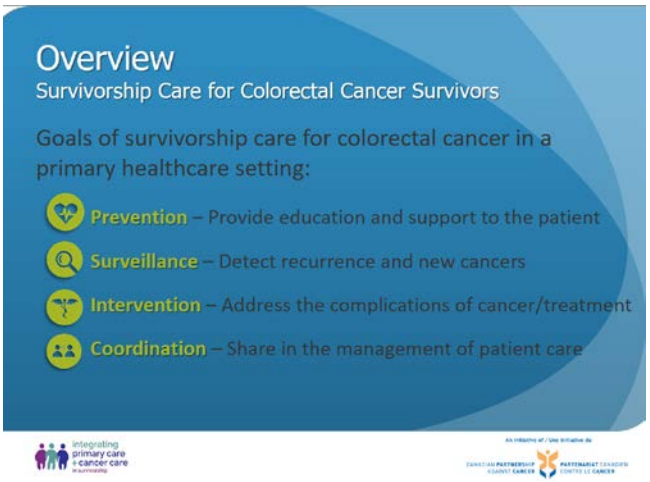
For patients with persistent, bothersome leakage, discuss treatment options such as surgical placement of either a male urethral sling or artificial urinary sphincter, and refer to a urologist for thorough examination including urodynamic testing and cystoscopy.



Perform a thorough evaluation if the patient presents with hematuria to determine the cause of symptoms and to rule out bladder cancer. Refer to a urologist for cystoscopy and upper urinary tract evaluation.



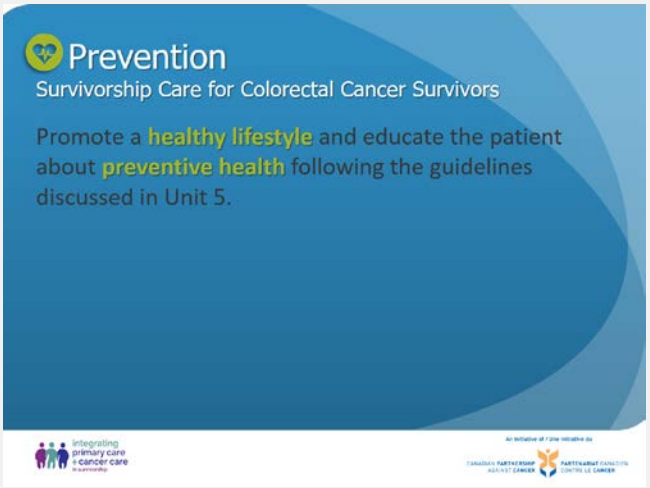
Unit 6, Track 3: Survivorship Care for Colorectal Cancer Survivors



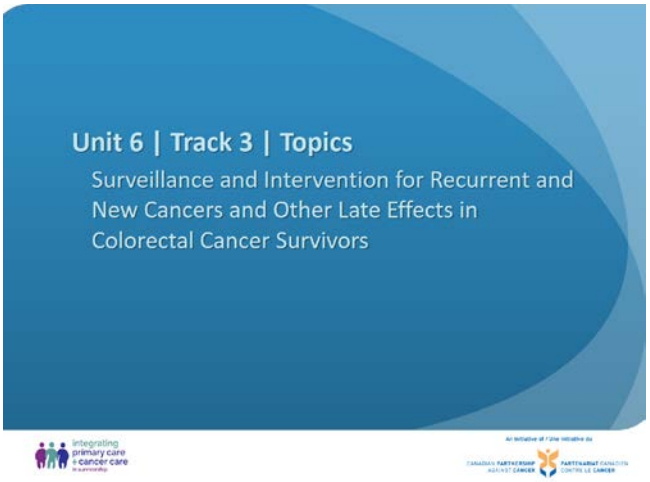
The goals of survivorship care for colorectal cancer in a primary healthcare setting are to:

- provide education and support to the patient
- detect recurrence and new cancers, and
- address the complications of cancer and its treatment

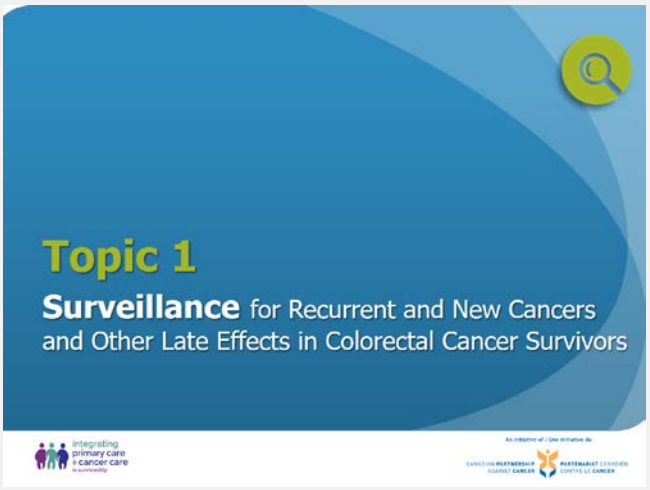
Coordination of care among healthcare providers and patients will be discussed in greater detail in the Interspecialty Workshop component of this curriculum.



Promote a healthy lifestyle and educate the patient about preventive health following the guidelines discussed earlier in Unit 5.



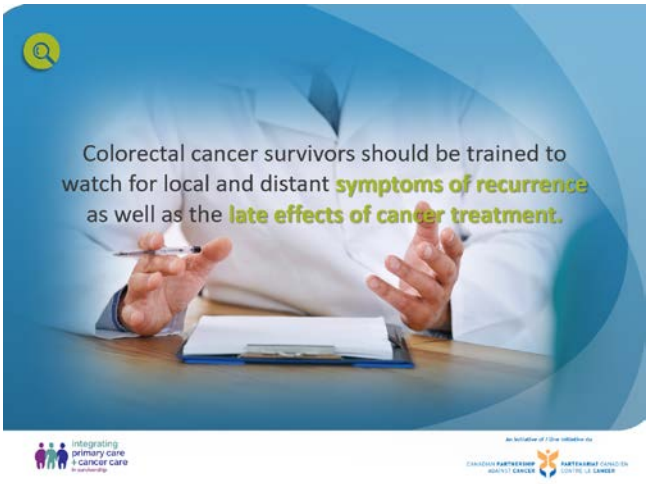
Unit 6 – Track 3 focuses on the surveillance and intervention for recurrent and new cancers and other late effects in colorectal cancer survivors.



Topic 1: Surveillance for Recurrent and New Cancers and Other Late Effects in Colorectal Cancer Survivors

In Canada, the current 5-year RSR for colorectal cancer survival is 62%.

Surveillance frequency and testing methods should be guided by the assumption that the patient is fit for and
consenting to aggressive treatment, including surgery,
should cancer recur.



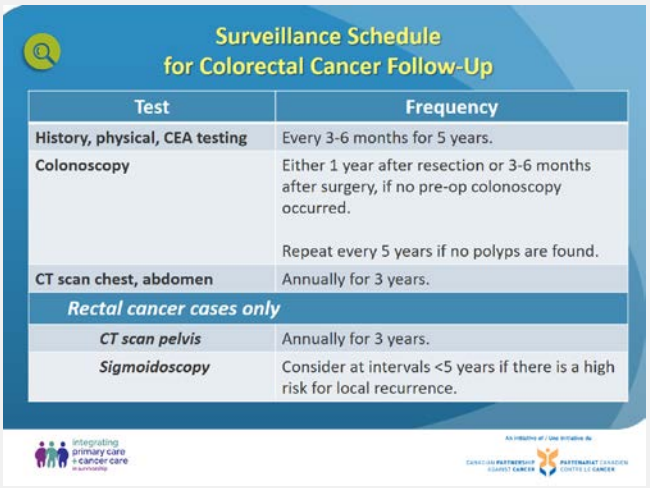
In addition to educating patients about general preventive health, colorectal cancer survivors should be trained to watch for local and distant symptoms of recurrence, as well as the late effects of cancer treatment.

The risk for recurrence in colorectal cancer survivors is greatest the first 2-4 years following treatment.

80% of recurrences occur within the first 2 years.

Local recurrence occurs in only 10% of cases.

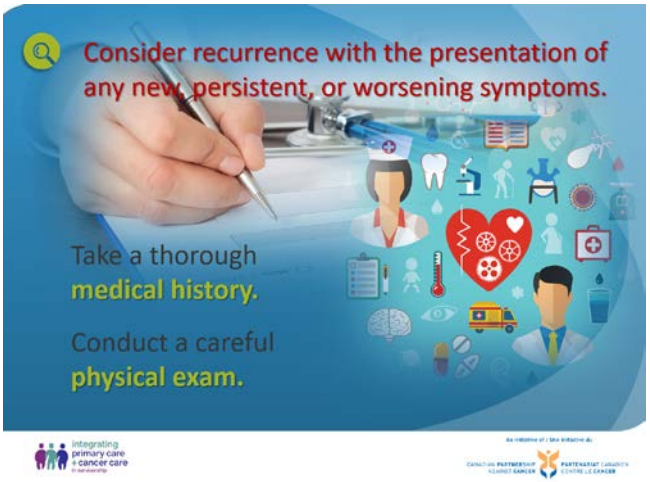
The liver and lungs, via the lymphatic system, are the most common sites for metastases to occur.



The following surveillance schedule is recommended for colorectal cancer follow-up.

Expect to see these patients every 3-6 months for the first 5 years.

Over the course of these visits, the following surveillance methods should be practiced.



Take a thorough medical history.

Conduct a careful physical exam.

Consider recurrence with the presentation of any new, persistent, or worsening symptoms.

Engage the patient in a discussion about current concerns and issues related to physical, emotional, psychosocial, and spiritual health.

Provide support services or refer the patient to the appropriate resources.

Measure serum CEA (carcinoembryonic antigen) every 3-6 months for the first 5 years.

CEA may be used as an important marker for cancer recurrence.

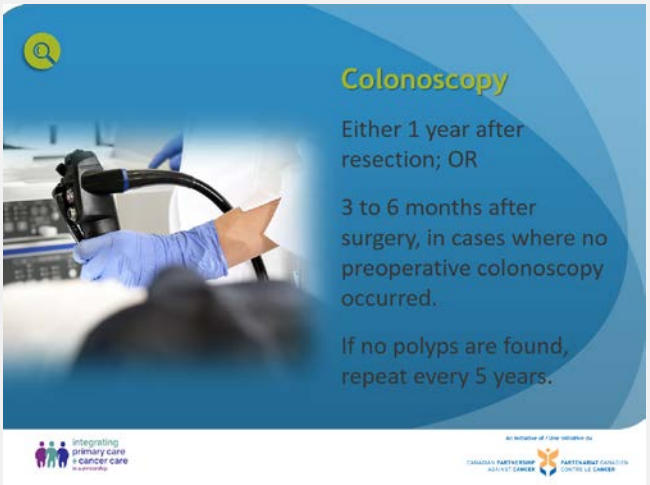
However, it's important to consider that as many as 30% of recurrences do not produce CEA

Expect to see elevated CEA values in patients immediately following surgery.

CEA returns to normal within 4-6 weeks of successful surgery.

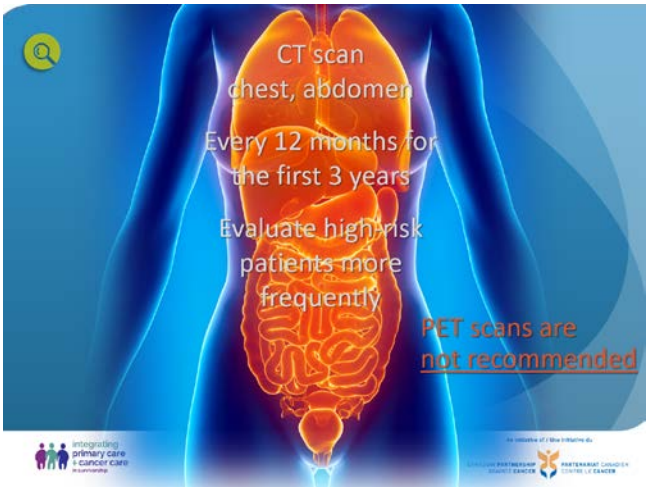
Refer the patient to his/her oncologist if elevated or rising CEA levels are found over sequential measurements.

This is considered significant and may indicate distant metastases, usually in the liver.



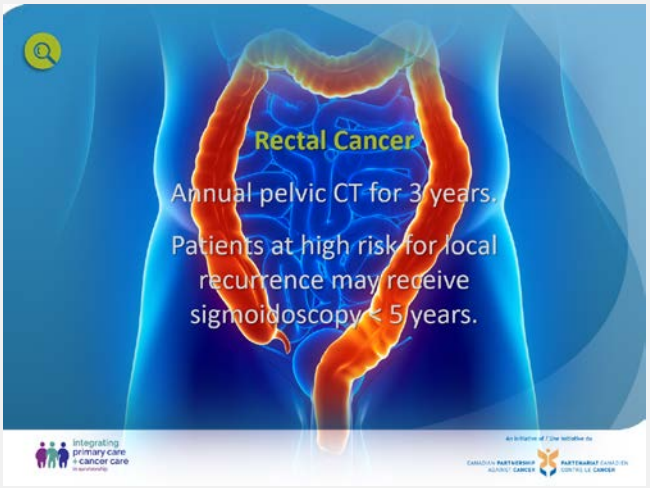
For survivors of all stages of CRC, colonoscopy is recommended EITHER 1 year after resection OR 3 to 6 months after surgery in cases where no preoperative colonoscopy occurred due to emergent presentation.

If no polyps are found, repeat the test every 5 years.



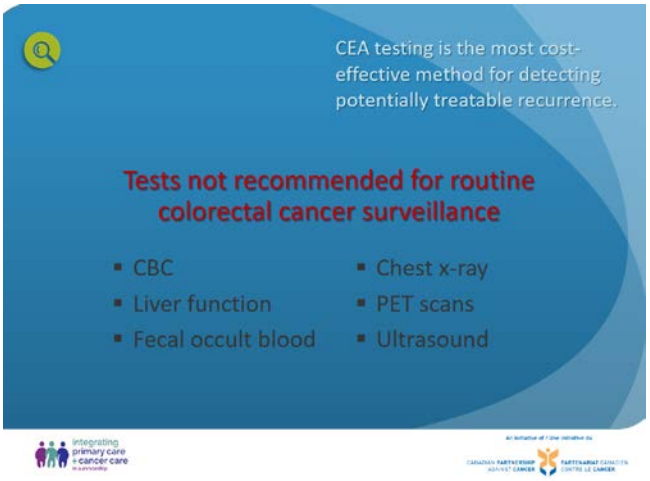
Order CT scans of the chest and abdomen every 12 months for the first 3 years, evaluating high-risk patients more frequently.

Important to note is that PET scans are not recommended for this patient population.



For rectal cancer patients, add an annual pelvic CT for 3 years.

For patients considered at high risk for local recurrence, consider sigmoidoscopy at intervals less than 5 years.

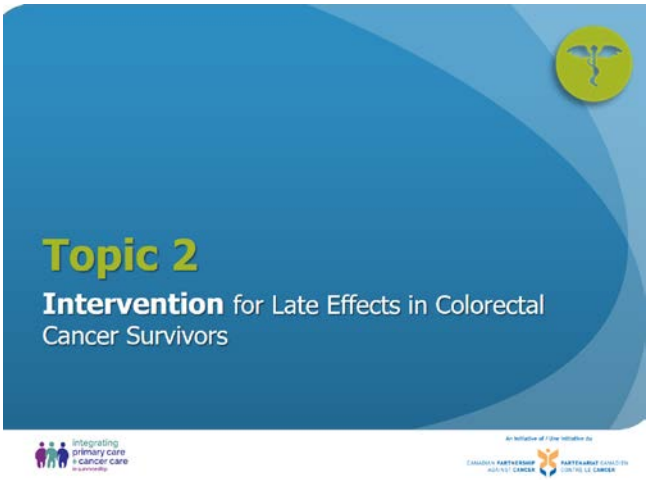


CEA testing is currently the most cost-effective method for detecting potentially treatable recurrence.

With minimal benefit in extensive laboratory tests and imaging, these tests are not recommended for routine colorectal cancer surveillance:

- CBC
- Liver function
- Fecal occult blood
- Chest x-ray
- PET scans
- Ultrasound

Surveillance testing of any kind is not recommended for patients with severe comorbidities and who are neither candidates for surgical intervention nor systemic therapy.



Topic 2: Intervention for Recurrent and New Cancers and Other Late Effects in Colorectal Cancer Survivors

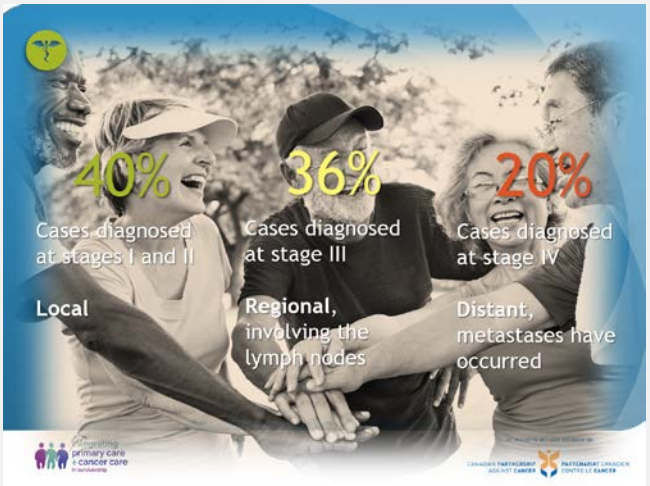
Among the common physical long-term and late effects of colorectal cancer and its treatment are:

- Chronic peripheral neuropathy
- Sexual dysfunction and infertility
- Secondary cancers
- Bowel and bladder dysfunction
- Emotional distress including anxiety and depression
- Psychological issues related to intimacy and body image

The overall health and quality of life experienced by colorectal cancer survivors is highly individualized. A patient's risk for long-term and late effects is influenced by:

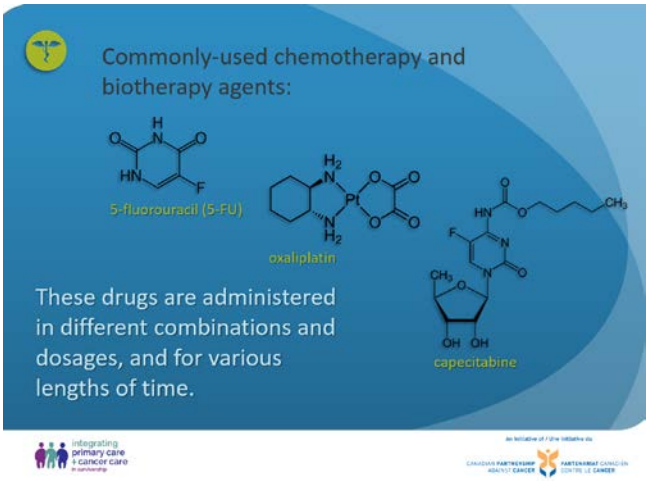
- Stage at diagnosis;
- Type, dose and duration of therapy,
- And the patient's age during treatment.

Most colorectal cancer survivors are at least 60 years of age.



40% of CRC cases are diagnosed at an early, local stage.
36% are diagnosed at a regional stage, involving the lymph nodes; and 20% are diagnosed at a distant stage, when metastases have occurred.

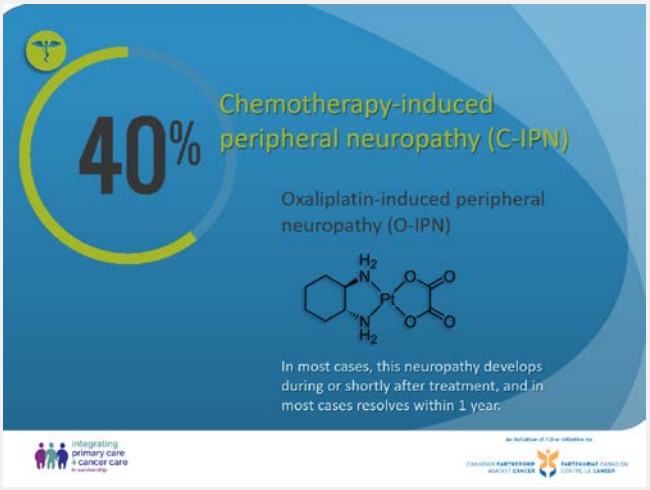
Treatment plans vary with staging at diagnosis. However, patients commonly receive surgery combined with systemic chemotherapy and radiation therapy.



The most commonly-used chemotherapy and biotherapy agents to treat colorectal cancer are

- 5-fluorouracil
- Oxaliplatin
- Capecitabine

These drugs are administered in different combinations and dosages, and for various lengths of time.



Expect to see chemotherapy-induced peripheral neuropathy (C-IPN) in more than 40% of survivors, especially Oxaliplatin-induced peripheral neuropathy (O-IPN).

In most cases, this neuropathy develops during or shortly after treatment, and in most cases resolves within 1 year.

Sensory nerve dysfunction is common in these patients, and often affects nerve endings in the hands and feet first.

Because the large sensory nerves are affected, patients experience disabling symptoms like paresthesias, dysesthesias, pain, and severe numbness.

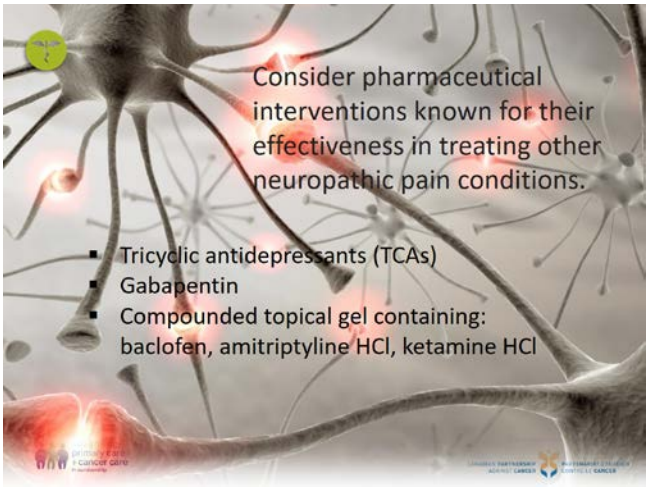
Conduct a neurophysiological exam to assess

- Reflexes
- Perception of touch
- Vibration
- Proprioception

Consider using the Total Neuropathy Score, or another tool validated for use in those who have received oxaliplatin.

Refer survivors for rehabilitative medicine treatments, including:

- Neurology
- Occupational or physical therapy
- Pain management



Because of the limited treatment options for C-IPN, consider pharmaceutical interventions known for their effectiveness in treating other neuropathic pain conditions. This might include:

- Tricyclic antidepressants (TCAs)
- Gabapentin
- Compounded topical gel containing: baclofen, amitriptyline HCl, and ketamine HCl

American Cancer Society Colorectal Cancer Survivorship Care Guidelines additionally support the use of duloxetine.

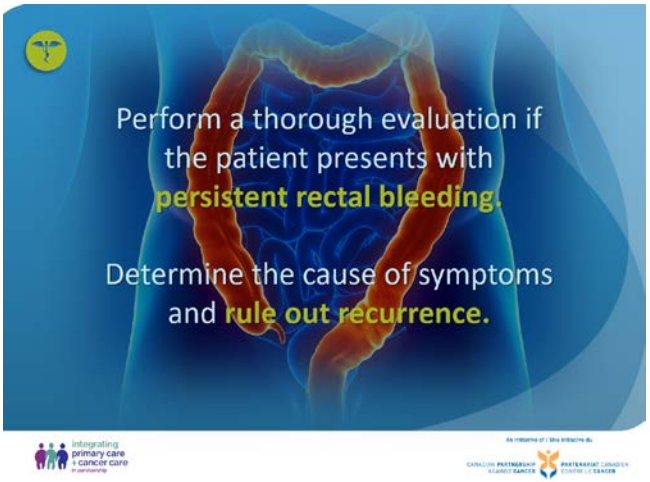
Patients who received duloxetine reported a significant decrease in average

- Pain
- Numbness
- Tingling

Ask survivors whether they are experiencing diarrhea, rectal bleeding, rectal incontinence, or other bowel dysfunction.

Respond to fecal incontinence similar to the way you would for those in the general population. Consider:

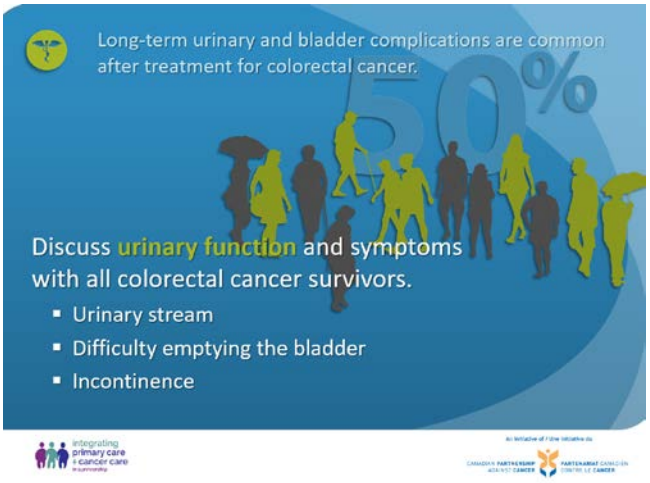
- Bulking agents or antidiarrheal medications to reduce stool frequency and improve stool consistency
- Biofeedback therapy to improve control of the pelvic floor and abdominal muscles
- Surgery



Perform a thorough evaluation if the patient presents with persistent rectal bleeding.

Determine the cause of symptoms and rule out recurrence.

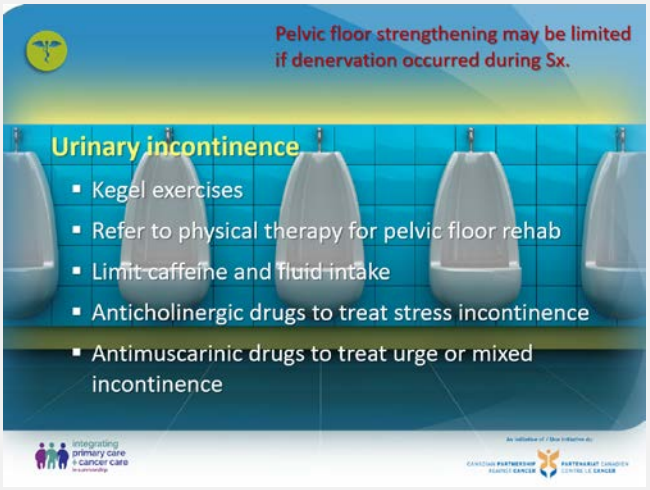
If rectal symptoms such as bleeding, sphincter dysfunction, rectal urgency and frequency persist, refer the patient to a gastroenterologist.



Long-term urinary and bladder complications are common after treatment for colorectal cancer.

In fact, stress and urge urinary incontinence are reported in more than 50% of patients up to 5 years following surgery.

Because both surgery and radiation can affect the bladder. Be sure to discuss urinary function and symptoms with all colorectal cancer survivors. This includes urinary stream, difficulty emptying the bladder, and incontinence.



Encourage patients with stress incontinence to perform Kegel exercises or refer these survivors to a physiotherapist for pelvic floor rehabilitation.

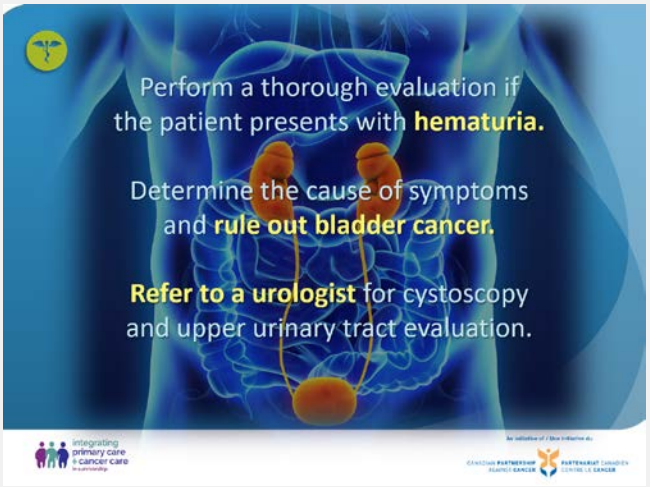
Important to note is that pelvic floor strengthening may be limited if denervation occurred during surgery.

Limiting caffeine and fluid intake may help, as can some pharmacological interventions. Anticholinergic drugs are effective in stress incontinence, and antimuscarinic drugs for urge or mixed incontinence.

To address issues such as nocturia, frequency and urgency, encourage patients to consider timed voiding and prescribe anticholinergic medications.

For patients experiencing a slow stream, an alpha-blocker may be prescribed.

For patients with persistent, bothersome leakage, discuss treatment options such as surgical placement of either a male urethral sling or artificial urinary sphincter, and refer to a urologist for thorough examination including urodynamic testing and cystoscopy.



Perform a thorough evaluation if the patient presents with hematuria.

Determine the cause of symptoms and rule out bladder cancer.

Refer to a urologist for cystoscopy and upper urinary tract evaluation.

Sexual dysfunction, sexual intimacy and body image issues are frequently reported among colorectal cancer survivors.

Be sure to discuss sexual concerns and issues.

For survivors of childbearing age who experience infertility, and patients experiencing sexual intimacy issues, consider referring the patient and his/her partner for psychosocial support.

Pharmacological interventions may include oral phosphodiesterase-5 inhibitors in men, and vaginal moisturizers and lubricants for women.

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